

AD630939

①



CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION			
Hardcopy	Microfilm		
\$3.00	\$0.75	90	00
ARCHIVE COPY			

Code 1

PROCESSING COPY

APR 15 1966
RECEIVED
A

NORTH AMERICAN AVIATION, INC.
SPACE AND INFORMATION SYSTEMS DIVISION

DPD 0307C 66

ACCESSION #	
FORM	WAFB
000	BUY
UNANNOUNCED	
JUSTIFICATION	
BY	
DISTR. BUTION/AVAILAS	
DIST.	AVAILAS
1	

22

SID 65-1021-1

**FACTORS OPERATIVE IN A POST-ARMS
CONTROL SITUATION
VOLUME I
Summary Report**

14 August 1965

Contract AF 49(638)-1411



DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED.

**NORTH AMERICAN AVIATION, INC.
SPACE and INFORMATION SYSTEMS DIVISION**

This document presents results of work sponsored by the Directorate of Plans, DCS/PAO, Headquarters USAF, under Contract AF 49(638)-1411. These results do not necessarily represent the official opinion or policy of the U.S. Air Force.



FOREWORD

The results of a study of the Factors Operative in a Post-Arms Control Situation under Air Force Contract Number AF 49(638)-1411 are presented in this final Summary Report (SID 65-1021-1). The final Technical Report is submitted under separate cover (SID 65-1021-2).

Work under this contract was performed by the Operations Analysis Department, Research and Engineering Division, Space and Information Systems Division, North American Aviation, Inc., under the direction of R. E. Brown, Principal Investigator. Major contributors to the study were: C. O. Beum, R. N. Clark, D. S. Irwin, L. Kashdan, J. E. Pournelle, and S. S. Ramsey.



TECHNICAL REPORT INDEX/ABSTRACT

ACCESSION NUMBER				DOCUMENT SECURITY CLASSIFICATION UNCLASSIFIED			
TITLE OF DOCUMENT FACTORS OPERATIVE IN A POST-ARMS CONTROL SITUATION, VOLUME I, SUMMARY REPORT AND VOLUME II, TECHNICAL REPORT							LIBRARY USE ONLY
AUTHOR(S) R. E. BROWN							
CODE	ORIGINATING AGENCY AND OTHER SOURCES OPERATIONS ANALYSIS DEPT. RESEARCH AND ENGINEERING DIV. SPACE AND INFORMATION SYSTEMS DIV					DOCUMENT NUMBER SID 65-1021-1 AND SID 65-1021-2	
PUBLICATION DATE 14 AUG 1965				CONTRACT NUMBER AF 49 (638)-1411			
DESCRIPTIVE TERMS							
ARMS CONTROL				GENERAL AND COMPLETE DISARMAMENT			
DISARMAMENT				PRE-CRISIS MOBILIZATION BASE			
MILITARY IMPLICATIONS				NATIONAL SECURITY PLANNING			
STRATEGIC STALEMATE				STRATEGIC DEFENSE			
NATIONAL SECURITY				MILITARY PRINCIPLES FOR EXAMINING			
FORCE PLANNING				ARMS CONTROL			

ABSTRACT

Arms control is seen to be different from disarmament. The objectives of arms control are not necessarily different from those of the military, and some arms control measures may be desirable strategic options which tend to increase the national security.

Various arms control and disarmament proposals are examined, and the effects of each on military capability to preserve the national security and protect vital national interests are analyzed.

The following proposals are examined:

U. S. and USSR proposals for GCD Military Missions and Observation Posts

The Johnson "Five-Point Program" including the Verified Freeze
Closure of Overseas Bases
Nuclear Free Zones

Implications of these and other arms control proposals on the Zuckert-Page Ten Military Policy goals and the following national security problem areas are analyzed:

Deterrence of Attack on the U. S. by Major Powers
Deterrence of Attack on the U. S. by Minor Powers
Security of Interests in Latin America
Subversion and Economic Warfare
Open or Clandestine Rearmament



CONTENTS

	Page
INTRODUCTION.	1
ARMS CONTROL AND DISARMAMENT	7
Three Dilemmas in Strategic Planning.	7
Approaches to Stability	9
CONCLUSIONS	13
Specific Conclusions.	13
General Conclusions Concerning Arms Control and the Study of Arms Control	13
Principles for Examining Future Arms Control Proposals	16
Subject Areas for Future Study	18
THE PRESENT WORLD ENVIRONMENT	21
Views of the Modern World	21
Political and Economic Environment	24
U. S. Military Capability to Provide for the National Security and Protect Vital Interests	26
Status and Prospects in Six Specified National Security Areas	31
Summary	33
GENERAL AND COMPLETE DISARMAMENT	35
Summary and Discussion of GCD Proposals	35
Effects of GCD on the Military Capability of the United States to Provide for National Security and Protect Vital Interests	37
Effects of GCD on U.S. Policy Goals	37
Effects of GCD Agreements on Specified National Security Problem Areas	40
Summary Discussion of General and Complete Disarmament	44
THE FIVE-FOINT PROGRAM	47
Discussion of the Program Points.	47
Effects of Verified Freeze on the Military Capability of the U. S. to Provide for National Security and Protect Vital Interests	48
Effects of the Verified Freeze on U.S. Policy Goals	53
Effects of the Verified Freeze on Specified National Security Problem Areas	55
Summary: Factors Operative in Verified Freeze Environment	57



	Page
NUCLEAR FREE ZONES	59
Summary of Nuclear Free Zone Proposals	59
Effects of the Creation of Nuclear Free Zones on U.S. Military Capability to Provide for National Security and Protect Vital Interests	61
Effects of Central Europe Nuclear Free Zone on U.S. Policy Goals	63
Effects of a Central European Nuclear Free Zone on Specified National Security Problem Areas	65
Effects of Nuclear Free Zones in Other Regions	66
Nuclear Free Zones and the Control of the Spread of Nuclear Weapons	69
OBSERVATION POSTS	71
Effects on U.S. Policy Goals	72
Effects on National Security Problem Areas	73
DESTRUCTION OF OBSOLETE EQUIPMENT	75
Effects on U. S. Military Capability	75
Effects on Policy Goals	76
Effects on National Security Problem Areas	76
EXCHANGE OF MILITARY MISSIONS	79
Effects on U.S. Policy Goals	80
Effects on National Security Problem Areas	82
Summary: Exchange of Military Missions	83
CLOSURE OF SELECTED OVERSEAS BASES AND WITHDRAWAL OF FORWARD DEPLOYED FORCES	85
Effects on Military Capability to Provide for the National Security and Protect Vital Interests	85
Effects on U.S. Policy Goals	87
UNILATERAL INITIATIVES AND NATIONAL SECURITY	89
The Objectives of Unilateral Initiatives	89
The Pre-Crisis Mobilization Base	90
Pre-Crisis Mobilization Base and Arms Control	92



INTRODUCTION

Throughout the history of the Republic, there has been no real distinction between military power and the capability to defend the United States. The same forces were adequate for both deterring attack against the population and property of the nation and destroying the forces and warmaking capability of the enemy. During the past twenty years, the military power of the United States has undergone drastic changes. At the end of World War II, this power was unequalled; the United States, had she so chosen, could have subjugated the world. Instead, she chose to reduce her military forces to a level judged to be sufficient to provide for the national security and protect her vital interests in a peaceful world, while joining with the other nations of the earth in the formation of the United Nations and World Court. These organizations were intended to provide the means of peaceful settlement of disputes without resort to the use or threat of force.

The intransigent attitude of the Soviet Union and International Communism, and the subsequent achievement of nuclear capability by the Soviets, dashed the hopes for "peace in our time," and launched an intense struggle for power and dominance between the Free World and Communism. At the same time, the impact of nuclear weapons on military strategy and political thought was only beginning to be understood.¹ Technology, through the development of the airplane, the ICBM, and the thermonuclear weapon completely changed the nature of national power, and created an era in which deterrence and defense were no longer synonymous. The problem has been summarized by the Secretary of Defense as follows:

"The expanding arsenals of nuclear weapons on both sides of the Iron Curtain have created an extremely dangerous situation not only for their possessors but also for the entire world. As the arms race continues and the weapons multiply and become more swift and deadly, the possibility of a global catastrophe, either by miscalculation or design, becomes ever more real."

"More armaments, whether offensive or defensive cannot solve this dilemma. We are approaching an era when it will become increasingly improbable that either side could destroy a sufficiently large portion of the other's strategic nuclear force, either by surprise or otherwise, to preclude a devastating retaliatory blow. This may result in mutual deterrence but it is still a grim prospect. It underscores the need for a renewed effort to find some way, if not to eliminate these deadly weapons completely, then at least to slow down or halt their further accumulation, and to create institutional arrangements which would reduce the need for either side to resort to their immediate use in moments of acute international tension. The United States and the Soviet Union, as the two great nuclear powers, are the nations most directly

¹A formal discussion of strategic doctrine in the nuclear era is presented in Volume II of this report (SID 64-1021-2).



endangered by these weapons and therefore have a great mutual interest in seeing to it that they are never used. But until we can find a safe and sure road to disarmament, we must continue to build our own defenses."¹

THE RESEARCH TASK

The basic problem considered in this study was that of attempting to show how the United States may best provide for the national security and protect its vital interests in an arms control environment. The importance of this problem to the military and the Air Force in particular is easily demonstrable. The United States has already accepted certain formal arms control agreements and other actions which have had a significant effect on Air Force capabilities relative to its mission and the capability of opposing forces. The United States has agreed in principle to general and complete disarmament (GCD). The U.S. has proposed, at Geneva and elsewhere, a series of arms control measures which, if adopted, might jeopardize the ability of the military to provide for national security and protect the vital interests of the United States. Because such agreements strongly interact with national security, it is imperative that these interactions be studied and understood.

Statement of Work

The statement of work as contained in the contract and as modified by a contractual change reads:

"A. Research

The contractor shall . . . perform studies and prepare reports on the "Factors Operative in a Post-Arms Control Situation." He will attempt to show how the United States may best provide for its national security and protect its vital interests under various major proposals in the field of arms control. Specifically, the Contractor shall conduct and investigate the following research:

1. Consideration of each of the major arms control proposals in relation to the vital unilateral and multilateral national security objectives of the United States.

(a) Arms control proposals to be considered:

Soviet proposal for general and complete disarmament with inspection and verification of military forces and the equipment phased out.

U.S. proposal for general and complete disarmament with inspection and verification of forces destroyed and forces remaining on each side.

¹Statement before The House Committee on Armed Services, 30 January 1963.



Five-point program of the President of the U.S. at the Geneva Conference, 21 January 1964, which calls for a freeze in the production of offensive and defensive systems and fissionable material, among other measures.

Each of the so-called "separable" proposals such as: nuclear free zones; observation posts; reciprocal destruction of obsolescent weapons; providing military missions.

Additional proposals considered important in describing the broad spectrum of such measures.

- (b) The following national security problems of the U.S. should be related to each of the proposals in (1) above:

- Security of U.S. from open attack by major powers
- Security of U.S. interests in Latin America and Caribbean
- Security of U.S. from direct attack by minor powers
- Challenge to U.S. interests through subversion and economic warfare
- Threats to the U.S. by rearmament (open or clandestine) of potentially hostile powers
- Possible challenge to U.S. position to world markets.

- (c) If proposals outlined in (1) above were realized, what effect would this have on U.S. policy goals of deterrence, crisis control, survivability, multiple options, controlled response, damage limitation, negotiating thresholds, and war termination?

2. Determine U.S. capability to protect its vital interests and achieve its policy goals, based upon forces allowable under arms control measures considered."

Approach

The general methodology used in the study was to consider the specified elements in the three areas designated in the contract (i. e., arms control measures, national security problems and U. S. policy goals) along the axes of a three-dimensional matrix as illustrated in Figure 1. The cell lying at the intersection of any three elements contains the interactions among them. For instance, cell 1, 1, 1 represents the case in which the USSR proposal for General and Complete Disarmament (GCD) is assumed to be an accomplished fact and the U. S. military establishment is considering its implications on the policy goal of deterrence against an open attack by a major power. Even though some of the cells in this matrix are vacant the number of combinations to be considered is still quite large. This problem was alleviated somewhat by combining some of the elements and emphasizing some more than others.

In order to consider the widest possible range of U. S. actions, it was necessary to group various policies and agreements together. In this way, it is possible to discuss various policy choices in a general way, and to give

Figure 1. Interactions Among Arms Control Measures and National Security



the study a larger field of applicability. In general, three major courses of action were considered: Disarmament; Arms Control; and Arms Race. Arms Control measures have been further divided into those which tend to produce a situation of "strategic stalemate"¹ and those which have some other effect. Although each proposal listed in the work statement has been individually examined, this broad grouping of policy choices and effects of agreements should be kept in mind when reading this report.

A more troublesome problem arises when the time frame of the agreements is considered. Disarmament in the near future is a practical impossibility. In order to achieve a world environment in which disarmament is possible, certain drastic changes must visibly have occurred. On the other hand, agreements to destroy obsolete weapons are merely anti-climatic. Such agreements may have an effect on the N-3h country problem, and may be significant in economic warfare, but their net effect on the strategic balance is nil.

Consequently, in this study, three time frames have been chosen: the immediate future (one year); the foreseeable future (one to five years); and long-range forecasts (six to twenty years). In the examinations of the long-range futures, scenarios describing some of the many possible ways in which particular arms control or disarmament measures could eventuate were prepared as reference points. The preparation of plausible scenarios for some of the disarmament measures required considerable ingenuity and, in some cases, rather fanciful events were necessary to create an environment in which disarmament might be credible. The fact that a scenario was prepared indicates neither a belief in or a forecast of this particular future. The environments in the scenarios were then analyzed and examined to determine the effects of the agreement on national security, exactly as was done for the agreement in the present environment. Only in this way was it possible to avoid trivial observations. It is obvious, for example, that in the present environment GCD would produce a situation in which a significant threat remained, but the United States would have no military means for preserving the national security.

¹Discussed further under The Five-Point Program.



ARMS CONTROL AND DISARMAMENT

It is customary in journalistic accounts of modern strategic planning to refer to the unprecedented military situation facing the United States and the world at large as "the unique situation in which we are able to destroy the population of the earth."

Although the present situation is unusual in history, it is not unique. Even the more unusual fact that increases in offensive power do not necessarily entail similar increases in the nation's capability for defense has precedents. There have been instances in which either of two powers could burn the crops and devastate the economy of its enemy, yet was unable to prevent reciprocation. Whereas the present strategic problems are not unique in history, they are certainly grave. There is little experience in dealing with these problems whose magnitude is unprecedented in history. Whether due to a lack of understanding, or due to factors inherent in the strategic balance, three dilemmas in strategic planning confront decision-makers at each choice point.

THREE DILEMMAS IN STRATEGIC PLANNING

The Balance of Terror Dilemma

The first dilemma has been discussed at great length by many analysts of all political persuasions. Very simply stated, the more weapons acquired, the less security a nation seems to have.¹ Although we have spent more money on weapons since 1945 than all nations combined have spent throughout history, the United States is less secure now than in 1945, and the Soviet experience has been similar. Yet, to eliminate the possibility of the enemy acquiring a decisive advantage, more and more weapons are required.²

The Balance of Terror Dilemma is summarized as follows:

1. More weapons do not increase security. The more weapons acquired, the greater the potential damage to everyone if they are ever used.

¹This dilemma springs from considerations of stability, which is discussed in some detail in the position paper on strategic doctrines, Volume II. More weapons may achieve a temporary military advantage, but the enemy response must then be considered.

²The question of decisiveness is dealt with in Volume II.



2. In order to keep up with technology and avoid a devastating surprise attack, more weapons are required.

The Damage Limiting Dilemma

The second dilemma facing strategic planners has received less attention from military analysts, but has sometimes been pointed out by the so-called "overkill" school. In order to limit damage to cities, the United States wishes to create conditions in which a pure counterforce war is viewed by the enemy as the most attractive—ideally the only possible—alternative. However, in order for the enemy to believe this, he must believe that a counterforce attack has some hope of success. This is hardly a stable situation. In order to deter attack, the enemy must believe that the United States retains an Assured Destruction capability.

The Damage Limiting Dilemma is summarized as follows:

1. To reduce damage, the enemy must be induced to attack military forces only, and must therefore believe that such an attack has some chance of success.
2. For the enemy to be deterred, he must believe that the United States would retain an Assured Destruction capability even after the best attack that could be made on U.S. forces.

The Arms Controller's Dilemma

The third dilemma is related to both of the preceding problems. Although the world has been subjected since 1946 to very strong international tensions and is divided into two implacably hostile blocs, there has been no general all-out war. This is due, in large part, to the mutual destruction such a war would cause. Arms-control measures which would limit the size of strategic forces, and thereby limit the damage that such a war could cause, must inevitably weaken the reluctance to go to war. As the possible damage of war decreases, the incentives to refrain from war as an instrument of national policy are lessened. Therefore, sufficient reduction of the damage capability of the superpowers, while reducing the devastation that war would cause, also weakens deterrence and makes war more likely.

The Arms Controller's Dilemma is summarized as follows:

1. Increasing the numbers of nuclear weapons increases the damage that would be caused by the outbreak of war and threatens the safety of mankind.
2. Reducing the numbers of nuclear weapons decreases the damage that would result from war and reduces the reluctance of decision-makers to resort to war.



APPROACHES TO STABILITY

There is no simple way for the two major power blocs to avoid the aforementioned dilemmas; yet, on an abstract basis, it is clearly in the interest of both powers that they be avoided. The probable devastation which would result from thermonuclear war tends to obscure more basic problems, and many people can see only that more and more destructive potential is being accumulated, with no apparent chance of halting this trend. Consequently, simple schemes to "halt the Arms Race," and "reduce tensions" are put forward. Very few, if any, of these plans avoid the consequences of all three dilemmas.

Disarmament

A commonly expressed plan for reducing tensions assumes that war can be avoided by removing the means of fighting a war—i.e., through disarmament. In its more sophisticated form, the argument is that elimination of all nuclear weapons and delivery systems may not eliminate the causes of war, but such actions will, at least, eliminate the very rapid spasm-type war that destroys civilization. The disarmed powers would have to create the means of war before they could engage in war; and during this cooling-off mobilization period, some peaceful solution to the problem might be found.

However, this argument fails to consider the effectiveness of modern weapons. At high strategic inventory levels, the possession of a few more thermonuclear bombs and delivery systems has little or no effect. When no one has such weapons, even a very small number may be decisive.¹ Reducing strategic inventories below a certain critical level can actually increase the probability of war, even without deep underlying hostilities between the two powers. If one side achieves a decisive advantage, that advantage will be retained for only a very short time, and may never be achieved again. The incentives for preventative war are, therefore, very high. Even so humanitarian a figure as Bertrand Russell advocated ultimata and preventative war when the West had a nuclear monopoly. It may safely be assumed that there would be strong advocates of such a policy within the Soviet Union if she gained, even momentarily, a similarly advantageous position.

It is obvious that disarmament will also drastically reduce the damage which would result from war and thereby reduce the risks associated with war. Combining this with the possibilities of achieving a decisive result, it appears that disarmament may not be a stable condition. Various changes in the geopolitical environment which might tend to increase the stability of a disarmed world are discussed in Volume II of this report; but they are frankly speculative.

¹ See discussion of decisiveness in Volume II.



Disarmament is, in fact, such an unlikely state that a number of rather fanciful assumptions concerning how it is achieved must be made as a prior condition for studying it. Although the initial assumption—that there will be no war if there are no weapons—appears simple on the surface, more detailed analysis reveals that the paths to disarmament are very complex, and that disarmament is unlikely in the present world.

Arms Control

The alternatives to disarmament are Arms Control and Arms Race. These are not, however, absolute categories because it is possible to have a situation of arms control in one area of competition, while simultaneously engaging in an arms race in another. President Johnson's Five-Point Plan, for example, provides for control of the numbers and characteristics of strategic offensive weapons, while allowing for unrestricted competition in military technological research. It is also at least theoretically possible to agree to control of strategic offensive systems, while engaging in a full arms race with respect to the development and deployment of defensive weapons.¹ Other combinations are easily imagined. It might be helpful, in fact, to think of a spectrum of conditions, with disarmament at one boundary and a full unrestricted arms race at the other. Obviously, the present situation falls between these extremes. Neither the United States nor the Soviet Union is devoting the maximum possible portion of its GNP to weapons development and procurement.

The objectives of arms control, as contrasted to disarmament, are correspondingly more limited. Where disarmament seeks to prevent war entirely, arms control has the more modest objective of making it unattractive, and removing some of the possible causes of war. Disarmament intends to make war physically impossible, but tends to create, as noted above, a situation of relative instability. Arms control, on the other hand, has the objective of creating conditions of long term stability by making resumption of the arms race less attractive than acceptance of the control situation.

The preceding statement should not be interpreted as implying that all proposed arms control schemes do, in fact, tend to meet these objectives. Each plan must be evaluated in the light of the strategic balance, effects of the plan on options available to the U. S. and her allies, etc. However, the contrast between the objectives of advocates of arms control and advocates of disarmament should be recognized. Furthermore, it should be noted that, broadly stated, the objectives of arms control do not greatly differ from the objectives of the Department of Defense: both seek to increase the national security of the United States.

¹ This possibility has been presented by Herman Kahn as the strategy of Defense Through Arms Control, or alternatively, Arms Control Through Defense.



The objectives of arms control, military objectives in modern conflict and objectives of disarmament are as follows.

Objectives of Disarmament:

- To prevent war by abolishing the means of war
- To ensure evolution of "other means" of conflict resolution, including world police with compulsory jurisdiction.

Objectives of Arms Control:

- To provide for the national security of the United States
 - To decrease the probability of aggression
 - To decrease the probability of an enemy preemptive attack
 - To decrease the probability of accidental war
 - To decrease the probability of catalytic (Nth Power Initiated) war
 - To limit damage in the event that war does occur
 - To increase the probability of evolution of peaceful means of conflict resolution

- To halt the Arms Race

U. S. Military Objectives in Modern Conflict:

- To deter aggression in areas of the world vital to the United States and Allied interests
- To use military forces to defeat aggression in a manner suitable for obtaining political goals through negotiation
- To limit damage to the United States and its Allies in time of war



CONCLUSIONS

The conclusions of this study fall into four broad categories:

1. Conclusions specific to proposals and agreements.
2. General conclusions concerning arms control and the study of arms control.
3. Principles for examining future arms control proposals.
4. Topics and subject areas identified for future study.

SPECIFIC CONCLUSIONS

The factors associated with each of the selected arms control measures called out in the Statement of Work and a discussion of the effects of the adoption of each measure, will be found in the sections of the report devoted to specific arms control measures. It was not believed desirable to summarize these findings out of context, as such repetition serves no useful purpose, and the summary statements might be subject to misinterpretation.

GENERAL CONCLUSIONS CONCERNING ARMS CONTROL AND THE STUDY OF ARMS CONTROL

1. Positions taken on arms control tend to be highly correlated with views on the outcome of the Cold War and the future of International Communism: Persons and groups who believe that the ultimate threat to the West comes not from International Communism but the Chinese nation, tend to desire measures which will reduce tensions between the U. S. and Russia, and tend to view the Soviet Union more as an extension of the historical Russia rather than as headquarters for world conquest. Many people within this group believe that the chief danger is thermonuclear war before the requisite evolution of the U. S. and USSR can take place, and, therefore, these people want to remove the means for making war without any great concern for other possible consequences of these actions.



The most prevalent opposition view to that stated above is the belief that the nature of International Communism requires it to oppose the West and to work toward the destruction of all governments and peoples who stand in the way of the world Communist State. This view has been summarized as "protracted conflict." These people are fully aware that thermonuclear war would be enormously destructive and would not leave any nation a clear winner, but they also believe that under certain circumstances, the leadership of International Communism might prefer the aftermath of war to the continuation of peace, particularly if the West is weak enough to offer an opportunity for a decisive victory, no matter how costly, for Communism. These persons and groups view the Soviet Union less as a nation than as the military, economic, and political base of the Communist movement, and they separate the interests of Russia as a nation from those of her Communist leadership. This group naturally opposes any limitation of U. S. Military power.

These views produce conflicting estimates of the desirability of arms control and disarmament.¹ The conflict is heightened by the failure to distinguish, in some cases, between arms control and disarmament.

2. Arms control measures may be separated into two overlapping groups: those dealing with and leading toward disarmament, and those dealing with or leading toward arms control. Certain arms control measures may be adopted as cold war strategies: these measures are not designed to disarm the United States, and should carefully be distinguished from disarmament measures: Although the distinction between arms control and disarmament measures is not always clear, in general, disarmament measures are those which are intended to lead toward a disarmed world, or at any rate, a world that is not dominated by thermonuclear arsenals. Arms control measures, although they may, in some cases, include destruction of certain weapons, are designed to stabilize the balance of terror and are not intended as part of a more comprehensive plan to eliminate the military as a factor in international politics.
3. Some arms control measures may require examination and study as candidates for adoption as strategic moves. Certain arms control measures may be positive and beneficial strategic alternatives: It is possible that some arms control measures will

¹As discussed in the Report there are many other reviews of the future of the cold war, each correlated with an attitude toward arms control.



definitely aid the military in their mission of providing for the national security and protecting U.S. vital interests. As an example, the pre-crisis mobilization base discussed under the heading of Unilateral Initiatives might profitably be studied as a feasible means of seizing the strategic initiative. The examination of arms control from a positive and constructive viewpoint will present numerous difficulties to the Armed Services. Questions of deployment, research and development, and resource allocation must be viewed in a different light.

4. There are two general approaches to be used in the study of arms control and disarmament measures: (1) an examination of the future environment which might result, provided the measure works as planned; and (2) an examination of the workability of the agreement and its internal logic: Not all arms control or disarmament proposals tend to produce acceptable future environments: those that do not produce an acceptable environment need not be examined in detail for their workability; those that do may not necessarily work as planned, and must therefore receive careful study to determine what their probable real outcome, as opposed to the desired outcome, will be.
5. Arms control measures which tend to produce a situation of strategic stalemate and those arms control measures which tend to produce strategic status quo are not necessarily undesirable and should receive further study to determine whether the agreements will work as planned: A continued arms race at present and foreseeable levels of expenditure is likely to produce a situation of strategic stalemate in either event. Unless there are drastic changes in U.S. strategic doctrines, it is highly unlikely that the United States will deploy a "Full First Strike" force. Therefore, arms control measures which tend to produce strategic stalemate, and, more importantly, measures which will preserve the strategic status quo, may not be unacceptable from the military point of view, provided, of course, that the agreements will work as planned. Arms control measures which utilize to the fullest the advantages in technical capability and economic resources which the United States enjoys may be preferable to an arms race in which the United States merely responds to Soviet initiatives.
6. The interactions of limitations on strategic weapons with the question of nuclear proliferation and control of the Nth country problem must be carefully considered in the study of arms control: The United States and the Soviet Union have invested



heavily in their strategic arsenals. They have sufficient resources to enable them indefinitely to maintain the bipolar nature of the present world through their own actions. Restrictions on strategic weapons, and particularly restrictions on strategic defenses, have the effect of lowering the cost of becoming a great power and may have serious effects on the Nth country problem. It is possible that control of nuclear proliferation may be more easily accomplished through unilateral action than through international agreements; i. e., through deployment of sophisticated defense systems the United States may make it impossible for any nation other than the Soviet Union to afford a capability to threaten the United States. Although this form of control is less comprehensive than would be the prevention of other nations from acquiring nuclear weapons, it may be the only control possible in the long run.

7. Disarmament measures, as opposed to most arms control measures are intended drastically to lower strategic inventories. Stability at low strategic inventory levels is a matter of uncertainty at best: Given the nature of modern weapons, only a few such weapons are required to achieve a position of great advantage at low-inventory levels. The incentive to acquire this small number of weapons is, therefore, high, and fear that the enemy will violate the agreement tends to give both sides an incentive to cheat. It would appear that this situation is not stable. In deference to holders of the opposite view, it must be said that the problem of stability at low-inventory levels requires further study and has not been settled in this study.

PRINCIPLES FOR EXAMINING FUTURE ARMS CONTROL PROPOSALS¹

1. In examination of any proposed partial or general disarmament measure involving general force reductions, U. S. freedom of action within total force numbers must be safeguarded. Although total forces and armaments allowable at any phase of disarmament, or in any partial disarmament agreement, might be adequate for the U. S., careful attention by military planners should be given to (1) force allocations within the total in each phase of a disarmament plan, and (2) deployments of the remaining forces allowed. The balanced nature of U. S. limited war forces must be preserved in the face of U. S. - USSR asymmetry.
2. The U. S. should avoid any agreement that would operate to give the Soviets any increased margin of ground force superiority during periods of phased reduction of forces and armaments.

¹Background material for this section is contained in Volume II of this Report.



3. Any arms control measures adopted by the United States must provide for U. S. retention of armaments and facilities to preserve her capability to apply forces for conflicts below the general war level, and to sustain these forces with secure sea and air communication lines, at long distances from the U. S.
4. In evaluating treaty proposals and in negotiating or bargaining, efforts to reduce U. S. amphibious lift, troop and cargo airlift capacity, and overseas logistic shipping must be firmly resisted.
5. The U. S. cannot, under the present strategic balance, accept any restriction or limitation on antisubmarine warfare (ASW) ships, ASW aircraft, ASW submarines, or upon ASW weapons (depth charges, mines, torpedoes, ASROC, SUBROC).
6. Any proposal to reduce total U. S. -USSR submarine strengths, exclusive of FBMs, on a percentage or parity basis, would be good for the United States under the existing balance and would improve the overseas sea communication situation, but if such a measure is effected, verification will be difficult and evasion might be an easy matter. In no case should an agreement of this sort be accepted if U. S. ASW capability must be relinquished in exchange.
7. An agreement with the Soviets mutually to reduce naval cruiser forces would not be advantageous to the U. S. —again in the interests of U. S. amphibious warfare-limited war requirements. USSR cruiser capabilities are not vitally serious threats, while loss of U. S. cruiser gunfire support capabilities for shore bombardment is not acceptable, at present or in the next 5-to-10-year period.
8. The Soviets may be expected to make major efforts to reduce U. S. tactical air capabilities and to attempt to outlaw use of nuclear weapons in limited war as this will tend to enhance the value of their land armies and armored divisions. Efforts of this type should be resisted.
9. As the Soviet Union operates on interior lines close to home bases, they may be expected to propose agreements which tend to reduce capability to support wars far from home territory. Among these proposals will be modifications of their proposals to withdraw overseas forces. Attempts to reduce strategic airlift capability may be disguised under agreements purporting to reduce nuclear delivery system strength by limiting total payload weight of military aircraft.



10. In general, the United States must retain the capability to resist large enemy land armies with sophisticated systems. The Soviets and Chinese are able to view heavy casualties without undue concern. Because of the differences in political systems, this is not true of the United States.

SUBJECT AREAS FOR FUTURE STUDY

1. There is a continuing need for studies of measures which will halt the arms race without giving up the strategic initiative or compromising U. S. capability to provide for the national security and protect vital national interests: As weapons inventory levels increase and there is greater public understanding of the destructiveness of thermonuclear weapons, it is likely that there will be increased political pressure for measures to halt the arms race. It may be possible to discover proposals and unilateral actions that will lead toward strategic stability and still be acceptable to the Armed Services. Discovery of such measures is obviously in the interest both of the Services and the Nation.
2. The question of stability at low strategic inventory levels is of vital importance for the study of disarmament: This question has been discussed at numerous points in this study. The study authors are not aware of any analysis, in depth, which takes into account the large number of factors which influence stability, and which examines alternative definitions of stability. If low strategic inventories do, in fact, lead to unstable situations, disarmament must be abandoned even as a long-term Utopian objective.
3. The interaction of arms control measures with the Nth Country problem requires further consideration: Limitations on both strategic offensive and strategic defensive weapons will have a vital effect on the capabilities of smaller nuclear powers in that the resources of all countries are quite limited in comparison with those of the U. S. and USSR. Deployment of strategic defenses obviously affect all nuclear powers. These interactions are only beginning to be appreciated.
4. The precrisis mobilization base concept should be studied as one approach to control of the arms race: The United States enjoys definite advantages in economic and technical resources. In particular, the Soviet Union experiences more shortages of critical skills and materials and, thus, has more problems in allocation of resources. The precrisis mobilization base concept is designed to exploit these advantages, and it may warrant further study as a positive arms control strategy.



5. The entire field of arms control interactions with military space systems requires continuing future study: As space exploration continues, and more data on the value of space are accumulated, there must also be continuing study of the effects of limiting the military exploitation of space, with due regard being given to the capabilities and limitations of the U. S. and USSR in this potentially vital area.



THE PRESENT WORLD ENVIRONMENT

The world environment is a many-faceted complex that includes ideological, political, economic, and ethnographic factors. Differences in points of view and beliefs provide the basis for different views of the world environment held by different groups of people. The military capability is affected by and must be responsive to the views of the present environment as changes occur. Consequently, an understanding of the present environment is prerequisite to an examination of arms control proposals. The predicted effects of the present situation may then be compared to the futures which may result from adoption of various arms control proposals.

The present and foreseeable world environment is dominated by the existence of two superpowers, each of which has sufficient power to ensure conquest of the rest of the world if the other superpower did not exist. The two superpowers profess ideologies which, taken literally, leave no choice except permanent conflict and Cold War between them.

Economic situations provide other division lines for the present and foreseeable world environment. Over one hundred legally sovereign "nations" contend for the economic resources of the earth. Only a few of these states are wealthy; most are poverty stricken, and are likely to remain so. Viewed from the standpoint of the economist, the superpowers have more in common with each other than either has with any other part of the world except Western Europe. No other area appears to have sufficient resources to meet its foreseeable needs without considerable help from the wealthy nations.

Another line of division of the world is ethnological. It has been said that the major factor of the first part of the Twentieth Century was that England and the United States spoke the same language; and that the major factor of the second half will be that the United States and Russia are both inhabited by people of the Caucasian race. Whether this is true or not, the tendency of the non-white people of the earth to view themselves as members of a vast international in-group is and will remain an important factor operative in any future world environment.

VIEWS OF THE MODERN WORLD

Many different views of the modern world are possible. It is noted that there is a strong correlation between geopolitical assumptions and attitude toward arms control and disarmament. In general, disarmament advocates



play down ideological divisions and emphasize economic aspects, while arms race supporters tend to believe that the ideological conflicts overshadow all others.

The following representative spectrum of views is vastly oversimplified and is not intended to be exhaustive. An exposition on world views could be made larger than the present study. However, the choices are believed to be appropriate for the present study, in that each view implies a definite attitude toward arms control and disarmament, and each has a significant number of adherents.¹

1. The major threat to the industrialized nations, including both the United States and the Soviet Union, is the militant nationalism of Asia and Africa and the disparity between the "have" and "have-not" nations. In this respect, China is a more dangerous enemy to us than is the Soviet Union.
2. The containment of the Communist world within its frontiers will sap its vigor and eventually bring about its collapse from within. The Communist society is evolving toward the same position to which the United States is moving—a kind of liberal welfare, socialist order. It is necessary only to stalemate Communist expansion in order to achieve eventual and lasting peace.
3. The conflict with Communism is likely to last for generations. Nuclear stalemate has not lessened the probability of other forms of conflict. In order to defeat Communism, it will be necessary to draw the Communist Empire into the zone of conflict. Vigorous efforts will be required in order to "open up" closed areas of the world in order to protect freedom and the West.
4. The conflict with Communism is extremely severe, and the Communists are completely unwilling to allow any change in the structure of their empire without war. Consequently, wars of liberation against Communist States will be required.
5. The Communists will never accept defeat on any terms. Consequently, the United States, in order to survive, must launch preventative war at the first possible opportunity.

Each of these world views implies a different optimum policy for the United States. Adherents to each view can and do produce evidence tending to show that there is no alternative to the policy each group of adherents advocates.

¹This spectrum of views has been modified from a presentation by Stefan Possony and Robert Strausz-Hupe.



It is no part of the task of this study to attempt to prove or disprove the correctness of any view of the world. This would be a thankless task, and would not contribute greatly to the study objectives. However, in order to address ourselves to the problem at hand, it will be necessary to adopt a reasonably consistent view of the nature of the conflict with international Communism, the Soviet Union and China.

In this study, it is assumed that whatever view of the world may be correct, it is appropriate for the military departments of the U.S. Government to adopt a cautious approach to international affairs and to assume, until directed otherwise by the President or Congress, that both the Soviet Union and China are potential enemies; and that, although these two nations have very different "legitimate" national objectives, the probability that they will remain military allies is high. To assume otherwise would be to neglect a potential threat.

It is further assumed that the United States will require sufficient military force to ensure the protection of U.S. citizens, property, and commerce abroad. Technical experts on loan to foreign governments often require protection. Subversion, internal disorder, and banditry must be suppressed in various areas. Consequently, the role of the military in United States foreign policy has not drastically changed, although the means of fulfilling this role has changed.

With the exception of the Pacifists, advocates of disarmament are generally confined to holders of World Views One and Two.¹ They believe that removal of the means of thermonuclear conflict will inevitably speed the evolution of similarities between the United States and the Soviet Union and, therefore, should be accomplished quickly.

Views Three and Four are not incompatible with some arms control measures. The particular measures to be adopted under these views should be chosen with care; but, as there is no necessity for a final thermonuclear conflict between the two blocs, measures which tend to prevent this are not necessarily objectionable.

View Five assumes, of course, that there must be a continued arms race, and that the United States should win it. Of course, this attitude toward the arms race can also be held by those who adhere to views Three and Four; but in those cases, the arms race is intended to discourage any attempt on the part of the Communists to settle the conflict by total war, and possibly serve as a means of economic warfare as well.

¹It is possible to hold both these views simultaneously



POLITICAL AND ECONOMIC ENVIRONMENT

The most outstanding feature of the present political world environment is the extension of legal sovereignty to nearly one hundred and fifty polities. However, legal sovereignty has not been accompanied by sovereignty in any other real sense. Because of the conflict between the superpowers, many of the smaller nations do possess a freedom of action not commensurate with their resources and power, but this could be eliminated at any time by agreement between the U. S. and USSR. The basic fact of the world environment is that all of the nations of the earth cannot between them pool sufficient resources to oppose the will of either superpower if the other stands aloof; and a vast grouping of them is required to form a bloc holding any real balance-of-power between the U. S. and USSR.

Some of the "independent" polities are tiny nation-states. Others are conglomerate empires whose boundaries were drawn many years ago by European colonial administrators without regard to ethnic, economic, social, or geographic reality. A few are stable democracies, and another small number are relatively stable monarchies. Most, however, are new states having no long-established traditions of order and obedience to legal authority, having insufficient resources for survival without extensive aid from the larger states, and divided within themselves by the lack of strong attachment to the central government. The incentives for these states to employ any means to acquire resources they do not now possess are not only strong, but overwhelming. In order to make maximum use of their existing resources, and to preserve their internal security, the ruling classes of these states have found it convenient to resort to totalitarian or near totalitarian measures. With the exception of the nations of Europe, it is difficult to find any historical, sociological, or political reasons to believe that any large number of these new polities will peacefully evolve into stable, self-sufficient states.

Long-Term Economic Factors

The over-all economic situation of the world also presents a grim picture. Food production is not keeping pace with population increases.¹ The total amount of arable land not yet under cultivation is steadily decreasing, and is unlikely to be sufficient for predictable needs. Techniques for increasing crop yields on present cultivated land are expensive and complex, and require educational and economic resources not available to most areas of the world. Acquisition of the means of high-yield agriculture requires accumulation of capital; but the requirements for feeding the rapidly growing populations are so high that little capital can be accumulated. In some cases, even if foodstuffs are provided free of charge, the areas to be serviced are

¹Man, Land, and Food Foreign Agricultural Economic Report #11, U.S. Dept. of Agriculture.



so vast and the transportation nets so inadequate that famine is only very narrowly prevented at present; and population growth is faster than industrial development.

Meanwhile, Europe, North American, Oceania, and, to a lesser extent, Russia and her satellites, enjoy an unprecedentedly high standard of living. It takes little ingenuity to see that the other nations are increasingly subjected to pressures for obtaining resources from the wealthy nations. In the past, poorer tribes and nations have developed hardy strains of warriors from the effects of adversity, and have enriched themselves through the conquest of decadent wealthy civilizations. It is not necessary to adopt an overly cynical view of history to believe that this could happen again.

Wealthy nations have always been faced with the choice between keeping the means for national defense, or paying tribute to others. Tribute has usually proved to be only a temporary expedient, often serving to give the enemies of the payers sufficient resources to undertake the conquest of their benefactors.

In the present circumstances, the vast disparity in power between the wealthy nations and the poorer ones serves to prevent open aggression in search of resources. However, enrichment through conquest of neighbors is still an open possibility, and the ideological divisions of the world operate to make even minor wars between minor nations important in the economy and military stability of the West. Great reductions in the military power of the West could again open the possibility of open conquest by over-populated nations.

Ideological Problems

In addition to these economic causes of latent hostility, the wealthy world is divided by ideological disputes. It may be the case that the common interest of Russia and the West will drive them closer and closer to an accommodation; but the present situation is one of deep and mutual hostility.

The Communist bloc has proclaimed world rulership as their objective. They have visibly provided themselves with powerful means of attaining this end. At every point around the world, Communist agents foment rebellion, anarchy, rioting, and dissention as a means of weakening the will and ability of the West to defend itself.

Resolution of these inevitable conflicts may be achieved without military intervention. However, foreign aid, economic development, cultural exchanges, and all of the other devices of modern statecraft are outside the scope of this study. For the present purpose, it is assumed that until such means produce clear and unambiguous effects, the military forces of the



United States must be ready to deter and possibly fight aggression. In addition, they must be sufficient to aid and protect the non-military agents of U. S. policy.

U.S. MILITARY CAPABILITY TO PROVIDE FOR THE NATIONAL SECURITY AND PROTECT VITAL INTERESTS

Forces Available

Although the United States possesses a superiority over USSR in numbers of intercontinental (strategic) missiles and aircraft, the situation with regard to strategic nuclear war is, for practical purposes, a standoff. Since it has more weapons and intercontinental aircraft, the U.S. is better equipped to deliver a counterforce second strike. The USSR intercontinental missiles are fewer in number, but each can carry a much larger payload, and the Soviets are known to possess large yield thermonuclear devices. The USSR appears to be oriented toward the countervalue attack in strategic warfare.

Both the U. S. and USSR are prepared but with varying specific capabilities to engage in warfare at the various levels of the spectrum below central strategic nuclear war.

The USSR is essentially oriented toward:

1. Strategic, intercontinental missile warfare.
2. "Land-mass" warfare on interior lines.
3. Exploitation of "rocketry" (support of large-scale ground warfare by IRBM's and tactical nuclear weapons).
4. Support of insurgency and wars of liberation in order to expand Communism and Soviet national power and influence.

The U. S. is essentially oriented toward:

1. Strategic deterrence, with second-strike capability.
2. Applications of balanced forces in limited conflicts in remote areas, over long communication lines.
3. Availability of rapidly deployable, mobile strategic reserve in the zone of the interior.



Strategic Offense Forces

The United States possesses what might be called a "Not Quite Incredible First Strike Capability" vis-a-vis the Soviet Union, and a full First Strike Capability with respect to any other conceivable combination of nations not including the Soviet Union. By Not Quite Incredible (NQIF) is meant that, although it is not reasonable to expect the United States to be able to launch a counterforce attack at the Soviet Union and escape with "acceptable" damage, it is reasonable to believe, and there is evidence that Soviet planners do believe, that a full U. S. first strike would greatly reduce the damage that could be done to the United States. In addition, the United States retains a full Assured Destruction capability in the face of the best attack the Soviets could launch.

Strategic Defense Forces

The United States has very little defensive capability, and only minimal Civil Defense and Ballistic Missile Defense is funded for the year. The Soviet Union states that every male citizen has received several hours of Civil Defense training. At the November parade in 1964, the Soviets displayed a large rocket which they claimed was capable of "destroying any incoming enemy missile at enormous ranges." They claim to have deployed this system. The Soviet Union has always shown a strong propensity to develop and deploy defensive systems.

General Purpose Forces

In general, it can be said that, relative to the Soviet Union, the United States enjoys an advantage in any limited operation which requires long supply lines and complicated logistics, while the Soviet Union is able to operate on interior lines in the areas contiguous to the USSR. This produces a situation of military balance, which the United States could undoubtedly upset through increased defense production, Universal Military Training, and conversion to a wartime economic base. It is unlikely that any such limited arms race can ever happen. Such severe measures in time of peace would have unpredictable effects on both U. S. internal politics and Soviet behavior.

Intermediate-Term Prospects (One to Five Years)

Strategic Offense Forces

The United States will probably slip from a position of Not Quite Incredible First Strike to one of Incredible First Strike capability, due to the lack of development and procurement of new systems, and continued Soviet Defensive deployments. It is also possible that the Soviet Union could acquire, through adoption of multiple warheads for the large boosters they have



recently displayed, an NQIF capability themselves. The Secretary of Defense has repeatedly stated that the U. S. will take all necessary measures to retain an Assured Destruction Capability.

Strategic Defense Forces

In the next five years, it is not reasonable to expect procurement and deployment of an effective U.S. capability, although the Civil Defense capability can be considerably expanded. The Soviet capability is of course unknown. They state that they will build defenses.

General Purpose Forces

United States general purpose forces will benefit by the emphasis placed on them in previous years. In particular, investments in tactical air support capability and air and sea lift capability will accrue. Soviet developments along these lines will also continue, but there is reason to believe that they will not gain as swiftly as the United States.

In addition, the next five years will see great increases in the capability of the defense, due in large part to new anti-armor weapons. The main battle tank may or may not become a thing of the past, but it is certain that it will be far more vulnerable to infantry and air weapons.

Technology also operates continuously to affect the future of tactical air power in limited war. The development of V/STOL aircraft tends to reduce the dependence of aircraft on their bases by making possible the dispersion of the planes throughout the battle area. Thus, tactical air superiority in the Douhet sense¹ will become more and more difficult to achieve. On the other hand, the price of aircraft which can engage in modern war is increasing astronomically, and only a very few nations will have the resources to possess any. If the Soviets choose to aid U.S. enemies in limited war, either through provision of modern aircraft or through operation of Soviet craft from sanctuary zones, it is probable that more "World War I" air actions will result—i. e., struggles to achieve air superiority in the air, rather than through attacks on the enemy bases. This was the experience in Korea, and the Taiwan Straits, and appears to be an emerging pattern in Vietnam. Obviously, the aircraft required for patrol and hunter-killer action are quite different from those designed to kill the enemy air fleet on the ground.

Development of air and sea lift capability will enable the United States to operate along a kind of interior line, in that she is strategically placed in

¹ Namely the creation of a situation in which we can fly and the enemy cannot. Douhet believed that this kind of air superiority could be achieved through the destruction of enemy bases; therefore, he stressed the importance of the bomber as opposed to the fighter aircraft which had been employed in World War I.



the center of the various war zones. However, the vast requirements for supplies, and the increasingly heavy weight of equipment for modern combat, may make pre-positioning of equipment almost mandatory. Thus overseas depots, as opposed to bases and barracks, may become even more important in the years ahead.

Status and Prospects of Military Policy Goals

War Termination Capability

War termination capability requires survivable counterforce weapons; sufficient defensive capability (active or passive) to ensure national survival from at least the first stages of war; and a survivable command and control capability. In addition, it requires that some channel of communication with the enemy be kept open, so that terms can be arranged. Status and prospects of these forces is classified. From the open literature it would appear that the United States has voluntarily "paused" in the development of strategic weapons systems, and may have to undertake considerable research and development in view of the recent new Soviet weapons exhibited in the May parades. However, no firm conclusions can be drawn from unclassified sources.

Negotiating Thresholds

The U. S. has consistently pursued technical development of the widest possible range of weapons effects. This has given a physical capability for a large number of recognizable limitations which could be put on conflict. In addition, strategic literature in abundance pointing out these limits and thresholds has been produced. It would appear reasonable, therefore, to state that great progress has been made and will be made in creating negotiating thresholds.

Damage Limitation

For the first time, the Secretary of Defense has presented evidence of the capability and effect of defensive systems to the Congress, and has requested funds for acquiring both passive systems, and continued development of active defenses. National magazines have also presented these systems in a favorable light. It would appear, therefore, that there is some prospect of development of damage limiting systems. However, technological developments for offensive strategic systems also continue, and these may offset any gains made.

It seems reasonable, however, to assume that systems which would limit the maximum damage which could be done by any nation other than the USSR are both feasible and reasonably economic. It is therefore possible to



reduce the world to a fully bi-polar state by the unilateral action of defensive system procurement. This might or might not also have the effect of providing defenses against Soviet systems; it would certainly prevent a free ride from unsophisticated cheap weapons. In addition, civil defense capability would at least limit the deaths due to a counterforce attack made on U.S. weapons. Without civil defense, even a pure counterforce attack could cause a very high number of U.S. casualties.

Controlled Response

It is our understanding that more and more sophisticated command and control systems are being developed and procured.

Multiple Options

The phase out of the manned bomber may within the next few years eliminate a number of strategic options. On the other hand, development of survivable missile systems gives the option of riding out the enemy attack. At the lower levels of war, the procurement of large quantities of general purpose forces has definitely increased, and will continue to increase, U.S. options.

Crisis Control

Control of crises requires both means and will. Analysis of the decision structure of the U.S. is outside the scope of this study. The physical means of crisis control are being procured, with the exception of a Full First Strike Capability. Without such a capability, of course, absolute escalation dominance is not possible.¹ However, it would appear that, below the level of thermonuclear exchange, the U.S. would be better off at each level of escalation than she was before escalation. That is, the United States would be more capable relative to her enemies in Korean-level war than internal war; more capable at World War II-level than Korean; etc. At the very highest exchange levels, of course, no power is dominant.

Deterrence

The requirements of deterrence are discussed in Volume II and the reader is referred to that position paper for a full discussion. United States policy places absolute priority on retention of an Assured Destruction capability under all possible circumstances.

¹ A discussion of escalation dominance and crisis management is presented in Volume II.



STATUS AND PROSPECTS IN SIX SPECIFIED NATIONAL SECURITY AREAS

Security of the United States From Open Attack by Major Powers

As previously stated, the United States policy is to retain an Assured Destruction capability under all possible circumstances. Barring severe miscalculation of the threat, this should be attained.

Security of U.S. Interests in Latin America and the Caribbean

The requirement for U.S. intervention in the Dominican Republic and the previous disasters in Cuba, point up the critical nature of this area. Reconnaissance and intelligence capabilities are of extreme importance here. In addition, limited war capability will be required for decisive action.

However, the principal variables in this region are not military, but political and diplomatic. These are outside the scope of this paper.

Security of U.S. From Direct Attack by Minor Powers

No difficulty in the near future is foreseen in this area. Present and projected forces should be more than adequate. However, in an era of nuclear plenty, this could become more critical.

Under such circumstances, it might be highly advisable to acquire defensive capability against all but the most sophisticated weapons systems, to prevent any possibility of catalytic war, or acts on the part of highly nationalistic minor leaders. The problem of the "Mad Cuban with One Missile" remains to face the United States until some defensive capability is acquired.

Challenge to U.S. Interests Through Subversion and Economic Warfare

Without question, the U.S. faces a difficult decade ahead. Techniques of internal and revolutionary warfare have been developed to a fine edge by the Communists, particularly the Chinese and Cubans; and the U.S. will need considerable ingenuity, economic resources, and old-fashioned determination to prevent collapse of one after another of our allies.

However, if economic warfare is combined with subversion, a somewhat less grim picture emerges. The United States enjoys enormously superior technical and economic resources. Simply by increasing her defense budget to sufficiently high levels, she can force most potential enemies out of the strategic picture. The enormous agricultural surpluses of the United



States are another potentially valuable weapon. The power to sell food cheaply, or give it away, is quite literally the power of life and death over some peoples.

In this study, it is assumed that the United States could meet any reasonable budget without severe economic difficulty. The consequences of lowering the amounts spent on weapons are therefore not unambiguously favorable to the U.S. Although it is true that our defense budget is larger than anyone else's, it is also true that only the United States can afford high levels of defense spending and still have significant resources available to engage in economic warfare. Whether the liberation of more resources by lowering defense spending through arms control will actually result in more effective U.S. economic moves is open to question. Totalitarian states have considerable advantages in this area. An alternate policy for the U.S. might be to increase the pace of the Arms Race and thus rob her enemies of even more resources they can now devote to subversion and economic warfare.

Challenges From Open or Clandestine Rearmament

The principal arms control measures now in effect are:¹

1. The Treaty of Moscow prohibiting nuclear tests in the atmosphere, underwater, or in outer space;
2. The UN Resolution prohibiting orbiting of weapons of mass destruction; and
3. The multilateral Treaty on Antarctica providing for the demilitarization of, and reciprocal visitation and inspection privileges within, the South Polar continent.

The United States is presumably prepared for the sudden resumption of nuclear tests, and it is possible that the U.S. could profit from Soviet abrogation of the Treaty of Moscow. No threat from open violation of the Treaty is foreseen. According to testimony given the Senate in the hearings on the treaty, it is not possible to violate the Treaty in a clandestine manner.

The prohibition on outer space does not contain any provisions for enforcement. Consequently, it is not inconceivable that the Soviet Union could orbit one or more counterforce weapons in order to reduce the flight time required for an attack on U.S. missile bases and air fields.² Although

¹In addition, there is the "Hot Line," but this can hardly be used for open or clandestine rearmament.

²The actual "flight time" would not be reduced, but the weapons could be brought on target more quickly than could ICBM's.



technically difficult and improbable, this form of attack is not impossible. It would constitute a violation of the Resolution, but until such weapons were detonated, there would be no means of detecting the violation. Little military value is seen in violations of the ban, unless there be military worth in the detonation, possibly at high altitudes, of weapons with very high yields, or in the aforementioned surprise value of the system. Coordination of an attack in which some elements are orbital, others are ground launched ICBM's, and some are submarine launched weapons, is, of course, very complicated.

No military advantage is seen from violations of the provisions of the Treaty on Antarctica. It is theoretically possible that deployment of ICBM's in Antarctica could provide a marginal military gain, in that the war plan of the enemy is complicated, radar warning nets are avoided, and missile defenses, if any, may be evaded. However, the technical difficulties of placing such forces in that hostile environment are enormous, and the visitation and inspection provisions of the Treaty make successful clandestine violation difficult.

Challenges to U. S. Position in World Markets

The U. S. possesses overwhelming economic resources. Skill in using them, and the relative advantages of the U. S. and USSR methods of doing business, are sufficiently large subjects as to require a separate study. There is no inherent economic reason that the Communist bloc should be able to challenge U. S. position in world markets under the present conditions. Liberation of Communist resources by arms control measures might change the situation.

SUMMARY

Examination of the strengths and weaknesses and military balance between U. S. and USSR, summarized above for the present and immediate future, might serve as indicators of acceptability when arms control measures proposed by the U. S. and USSR are being evaluated to determine acceptability. For example, in negotiating with the Soviet Government on arms control agreements, reductions by the U. S. in areas of amphibious warfare capability, overseas troop and cargo lift, and anti-submarine warfare (ASW) strengths could not be balanced acceptably by concessions the Russians might be willing or able to make. In another area, U. S. negotiators should steer away from an agreement that would operate to give USSR any increased margin of ground force superiority at any time, particularly during the phased reduction periods in executing a treaty. Further, it might be a definite advantage to the U. S., which depends upon long sea lines of communication, for both sides to reduce numbers of ocean patrol submarines, with U. S. still retaining some number of FBM submarines, provided such an ideal gain for the U. S. could be achieved.



GENERAL AND COMPLETE DISARMAMENT

There are two possible approaches to the study of General and Complete Disarmament (GCD). One approach is merely to assume that some particular agreement has been signed and accepted in relatively good faith by the U. S. , and then to assess the effects of the particular agreement. The other approach is to examine the present world environment, study the agreement, and then attempt to show under what circumstances it might be rational to conclude such an agreement, or what alterations in the agreement might make it more attractive. Both approaches have been employed in this study.

The first approach (assuming the existence of an agreement) conforms more nearly to the provisions of the Work Statement, and the results of an investigation based on this approach are given here. It produces some relatively trivial results and few surprises will be found in the discussion.

The second approach produces a highly controversial study, and requires the exercise of considerable imagination. Neither approach is likely to produce any final results, nor is any study of GCD likely to change opinions concerning disarmament. It does not appear that either the advocates or the detractors of GCD are particularly amenable to rational argument; the conflict between them rests on assumptions made about the future of world politics. More detailed discussion of GCD, and results of studies employing the second approach, are to be found in Volume II of this report.

SUMMARY AND DISCUSSION OF GCD PROPOSALS

Both the United States and Soviet GCD proposals produce approximately the same final situation. The major differences in the proposals are in the phasing out of the armaments, the length of time to fully implement the agreement, and the techniques to be employed for ensuring that the agreements have been kept. Both proposals have as an objective the establishment of a world in which no nation retains significant military power. The few national armed forces allowed under GCD are for the purpose of internal security, and might better be termed police or constabulary rather than military forces.



Summaries of the U. S. and USSR Proposals¹

Under the Soviet proposal, a large but unspecified proportion of the means of long-range nuclear delivery,² all military bases on foreign soil, and all troops stationed in foreign lands would be eliminated immediately. Simultaneously, there would be a modest reduction in all military personnel on active duty. At a later stage, all remaining strategic weapons would be destroyed, and armed forces would be reduced to a level required for internal security³. The remaining constabulary forces would be available to the Security Council of the UN for enforcement of the provisions of the treaty. An inspectorate possessing power to investigate possible violations would be created.

Under the U. S. proposal, a balanced phased reduction of forces, timed so that no state would obtain a military advantage, is contemplated. As the national military forces are reduced, a United Nations Peace Force would be created. At the completion of the final stage of the treaty, the UN Peace Force would be strengthened "until it has sufficient armed forces and armaments so that no state could challenge it." In addition, an inspectorate that would have full power to investigate possible violations of the treaty would be created.

Contrasts Between the Two Proposals

1. The Soviet proposal would quickly reduce or eliminate military power in areas not contiguous to national borders of states. The U. S. proposal is more balanced.
2. Under the Soviet proposal, the Security Council becomes the controlling agent of any international constabulary. The U. S. proposal is less specific, but is clearly intended that no state would retain a veto over the use of the UN Peace Force.
3. The International Disarmament Organization (IDO) created to inspect for compliance with the agreement retains a national character under the Soviet proposal. The USSR proposal states that IDO members will be recruited in such a manner as to ensure adequate representation of the three major groups of states. Under the U. S. proposal, IDO becomes, hopefully, a fully international civil service whose members owe allegiance to no state. It should be noted that in theory the members of the UN Secretariat are supposed to give primary allegiance to the UN, not their country of origin; but recruitment is on a quota basis from the various national states. This corresponds to the Soviet concept of IDO.

¹Detailed summaries of these agreements will be found in Volume II of this report.

²The original proposal would immediately eliminate all long-range strategic weapons. Later modifications provide for a nuclear "umbrella" until the other provisions have been carried out.

³As the Soviets presumably do not contemplate giving up Great Russian dominance of the USSR, and considerable pressure for self-determination could develop in non-Great Russian areas, a case can be made for USSR internal security forces being larger than those required in the relatively stable West.



EFFECT OF GCD ON THE MILITARY CAPABILITY OF THE UNITED STATES TO PROVIDE FOR NATIONAL SECURITY AND PROTECT VITAL INTERESTS

Near-Term Effects (One Year)

The near-term effect of the U. S. proposal would be to lower but not eliminate the capability of the United States to defend against aggression overseas. The strategic balance of power does not appear to be significantly affected in this time period.

The near-term effect of the USSR proposal would be to eliminate the capability of the U. S. to defend against ground aggression in Europe and all other areas contiguous to the Soviet Union, while not significantly reducing the Soviet capability to wage ground war in those areas. In addition, the strategic balance would be greatly affected, with the U. S. thermonuclear capability being reduced to what is popularly known as "minimum deterrence."

Intermediate-Term Effects (One to Five Years)

Under the U. S. proposal, all nations will have lost a large part of their capability for military action within five years. Some forces would be retained, and the UN Peace Force would have some capability in the event of resistance to the provisions of the treaty. Whether or not the UN Force could politically be employed is outside the scope of this study.

The Soviet proposal is completed within the 5-year period, and consequently a state of GCD would theoretically be attained. Discussion of completed GCD agreements is presented below.

Far-Term Effects (Six to Twenty Years)

Under the U. S. proposal, all national military forces will have been eliminated in this time period. In addition, the UN Peace Force would be sufficiently strong to oppose any nation violating the treaty. The actual strength of the UN Force, and its capability against various alliances, cannot be determined in this study. Obviously, under either the U. S. or USSR agreement, the United States will have no military capability to provide for the national security or protect her vital interests, whatever the nature of conflicts that may exist.

EFFECTS OF GCD ON U.S. POLICY GOALS

Near-Term Effects (One Year)

In general, the U. S. proposal will have little effect in the 1-year time frame. The following remarks are therefore primarily directed to the Soviet GCD proposal.



War Termination Capability

Under the Soviet proposal, the United States would retain no capability for terminating a war in Europe, assuming that the USSR instituted an attack in Europe.

Under the U. S. proposal, the United States would have approximately the same capability as at present, with both U. S. and USSR forces proportionately reduced.

Negotiating Thresholds

Under the Soviet proposal, all negotiating thresholds between surrender and use of the retained strategic umbrella forces will have been effectively eliminated with respect to areas contiguous to the Soviet Union. Limited nuclear war capabilities will have been eliminated, as will counterforce general war capabilities. The prospect of a land war with the Soviet Union in Europe is sufficiently grim as to effectively eliminate the prospect of a World War II-level engagement there. Therefore, the U. S. is faced with the choice of surrender, or use of countervalue weapons against the Soviet Union. These weapons may be employed in a spasm war, or in a controlled deliberate way, but the Soviet Union will, in any event, retain sufficient nuclear forces to destroy large parts of the U. S. value system in reprisal.

Damage Limitation

Under both the U. S. and Soviet proposals, both sides retain sufficient strategic nuclear power to produce large and drastic destruction. Under the Soviet proposal, there will be some unspecified limitation on the number and quality of strategic delivery weapons in the retained umbrella, and therefore, there will be some damage limitation. This may be offset by the elimination of strategic options available to the U. S., as the U. S. must respond with nuclear forces or abrogate her treaty obligations to NATO if the Soviet army attacks Europe.

Controlled Response

Control of weapons is not affected by the agreements; however, the number of weapons available for controlled response is drastically reduced to a near vanishing point by the Soviet proposal.

Multiple Options

The Soviet proposal will have reduced the number of options available to a very small number. This has been discussed under Negotiating Thresholds.



Crisis Control

The reduction of options available will more or less have eliminated the military as a factor in crisis control under the Soviet proposal. Whether other means of crisis control will be available to the Department of State is outside the scope of this study.

Deterrence

Under both the U. S. and Soviet proposals, deterrence of nuclear attack on home territory is retained. The Soviet agreement would have reduced U. S. strategic capability to the position usually referred to as "minimum deterrent."

Intermediate-Team Effects (One to Five Years)

Within five years the Soviet proposal would be completed, and a state of GCD would have been achieved. Therefore, the aforementioned U. S. policy goals would simply not apply. There would be no military capability, and therefore no point in discussion of military policies. Presumably some other policy goals, unrelated to military power, will have replaced them. In actual fact, these might well be a vital requirement for a military capability which the U. S. no longer possessed.

Under the U. S. proposal, in theory, a balanced reduction of arms in which no nation will have gained a military advantage would be achieved. The five-year point is approximately midway in the U. S. time phasing. Under the U. S. proposal, therefore, there will have been no real effect on the specified policy goals, in that the absolute level of armament will have changed, but relative strengths will remain the same.

In actual practice, the effects may be different; however, it is convenient to discuss these at a later time, since it is necessary to consider the possible effects of at least one side not entering into the agreement in good faith. If it be assumed that both sides have entered the agreement in good faith, that there have been no violations, either intentional or unintentional,¹ that no sudden change in the international environment is producing pressure for war, and that the Communists have ceased to pursue the goal of world domination through military means; then there will have been no significant effect on U. S. capabilities with respect to the policy goals in the 5-year period, with the exception of the damage limitation which should accompany reduction of strategic inventories.

¹Unintentional violations could result, for example, from the actions of insubordinate officers.



Far-Term Effects (Six to Twenty Years)

Under both agreements, a state of GCD will have been achieved within 6 to 20 years. The military policy goals of the United States will therefore simply be irrelevant. A more detailed discussion of GCD is contained in the sections contrasting Disarmament and Arms Control. Discussion of various changes in the world environment which might be conducive to agreements to implement a CCD proposal is presented in Volume II.

EFFECTS OF GCD AGREEMENTS ON SPECIFIED NATIONAL SECURITY PROBLEM AREAS

The General and Complete Disarmament agreements are, of course, designed to make open attack on the United States impossible. If there is the presumption that the agreements have been entered into in good faith, if the agreements are not violated, and if no upsetting conditions occur in the process of disarming, then it is obvious that there is maximum security from open attack. These assumptions, however, are open to question.

Unlike Arms Control measures, disarmament schemes such as the two GCD agreements under discussion have no built-in military stability mechanisms. Under an Arms Control measure which preserves high strategic weapons inventory levels, the addition of a small increment in strategic power is not decisive. In the case of disarmament, however, this may not be true. In a disarmed world, a very little modern capability, however acquired, can be decisive. It is therefore necessary to discuss ways in which nations might acquire additional strategic capability.

Security of the United States From Open Attack by Major Powers

The most obvious possibility of attack by a major power is through violation of the treaty by clandestine rearmament or other cheating. It must be recognized that there is no possible final solution to this threat. Even though the International Disarmament Organization (IDO) inspectors possessed powers far in excess of those now allowed any Constitutional Officer of the United States, they could not ensure 100-percent compliance with the agreement. A few weapons could always be hidden. It is not even necessary for the central government of the violating power to be aware that the agreement is being evaded. Diehard military or political officers could conceal several nuclear weapons and falsify the original inventories; small research and development laboratories could be concealed, either in remote areas, or alternatively in cities under peaceful industrial cover.¹

¹ Obviously, biological warfare weapons can be produced in any reasonably well-equipped high school biology laboratory.



For any scheme put forth to aid the "finders," it is possible to conceive of a situation in which the "hiders" could succeed. Furthermore, even to guarantee a modest possibility of success, the IDO inspectors must be given powers of arbitrary search and seizure. They may even ask for other means to compel cooperation of witnesses, such as drugs, polygraph, etc. Such methods, if employed, would further alienate at least a part of the population of the inspected nation; this could increase the chances that the "hiders" would succeed. Yet, failure to use the most stringent inspection procedures and equipment that can be devised would be to endanger the peace. The lot of the inspector under such circumstances, if he takes his position seriously, is not to be envied.

In addition to evasion of the treaty, there are other means by which significant increases in military power might be acquired under GCD. Technology and science will not come to a halt, even if in good faith all military research and development is given up. It is relatively easy to conceive of militarily significant discoveries resulting as a by-product of "peaceful" research. If such a development promised supremacy in the world, the temptation on the part of the discoverer to use it "to ensure the blessings of liberty for the world," or alternatively, to "liberate the world for the benefit of the exploited masses," is high and obvious.

Therefore, it must be concluded that GCD does not necessarily ensure against open attack by a major power. Indeed, it may increase the probability of such an attack by reducing the options available at the same time the probability of success is raised.

On the other hand, it cannot definitely be said that GCD will not provide for the national security through nonmilitary means. Certainly, some officials of the government believe that it can do so. In this study, attention has been confined to military security. It is an obvious conclusion that there is no military means of ensuring against an attack by a major power under GCD (or any other disarmament proposal). This is not necessarily true of some arms control measures studied.

Security of U. S. Interests in Latin America and the Caribbean

Under GCD, the U. S. retains no military means of protecting the lives and property of U. S. citizens outside the border of the United States. The discussion under the heading of subversion also applies to this area.

Security of the United States from Direct Attack by Minor Powers

It should be noted that in a disarmed world, technology may have the effect of converting certain "minor" powers into major ones. The likelihood of this is indeterminate, as the major powers have vastly more technological



resources, and significant technical discoveries are consequently more likely to occur in the larger nations. There is no a priori reason, however, why a minor power could not develop a significant technological capability; and of course, the minor powers are less likely to be stringently inspected than are the major ones.

A further possibility would be the development in a minor power of a clandestine strategic weapons capability by technologists from one of the major powers. This technique has been used to evade treaties restricting military capability in the past, and might be employed again. The effect of the production, for example, in Cuba, of a few nuclear weapons in a disarmed world can easily be imagined.

Challenge to U.S. Interests Through Subversion and Economic Warfare

Subversion and "wars of national liberation" remain, of course, a significant means of aggression even under GCD. It is not physically or politically possible to eliminate all means of guerrilla warfare. Even rocks and clubs remain, if, through some fantastic series of circumstances, all hunting weapons, bows and arrows, kitchen knives, gasoline, dynamite, etc., were registered and controlled.

Subversion does not require sophisticated means. The techniques for combating internal war have, however, relied on modern military equipment. Therefore, the guerrilla has a clear advantage under GCD. It may be argued that under GCD, he would have little incentive to infiltrate into another's country, because the wealth of the great nations would be made available to the poor of the world. This argument is outside the scope of this study; but it may be observed that, in the past, appeasement and tribute have failed to control unruly neighbors at least as often as they have succeeded. It must be fairly concluded that subversion is a significant threat to U.S. interests under GCD. In fact, insurgency and counterinsurgency are highly significant factors operative in a GCD environment.

Threats to the United States by Open or Clandestine Rearmament of Potentially Hostile Powers

This is a significant and major problem area for GCD. Because of the low strategic inventory levels maintained under GCD, a very small number of thermonuclear weapons could give any nation a decisive advantage.¹ The question becomes whether or not such weapons could be acquired under the conditions of the agreement.

¹ An examination of "decisiveness" at low strategic weapons levels is presented in Volume II.



As previously stated, it is impossible to guarantee 100 percent efficiency of the IDO inspectorate, even if it be granted full powers of search and seizure. Furthermore, only a very few successful violations of the agreement could produce a decisive result. Even if the agreement were entered in good faith, there is no way to guarantee that some groups of political or military officers, fearing that the other side will violate the treaty, might not attempt "preventive evasion." Once a successful evasion has been made, the fact that it is in all probability decisive will prove a powerful incentive to engage in preventive war. Furthermore, a successful evasion can be countered in a relatively short time by the rearmament of the other side. While that rearmament is under way, the side with the weapons will be watching its superiority vanish, possibly forever. The results are hardly likely to be stabilizing.

It must be fairly concluded, therefore, that there is a real threat from open or clandestine, and particularly clandestine, rearmament in a condition of GCD, and that if such rearmament occurs, it will produce a strategic situation as unstable as that which results from the arms race.¹

Possible Challenges to the United States' Position in World Markets

Under disarmament, both the United States and the Soviet Union will possess greatly increased national resources to devote to economic warfare, or alternatively, to cooperative efforts to develop under developed nations. Which course of action will be chosen cannot be predicted in this study. It would appear that from the purely economic standpoint, GCD is a situation highly favorable to the United States. The U. S. military budget is higher than those of the USSR and Europe combined. The money saved by elimination of armaments would be highly significant.

However, the interaction effect with subversion must be considered. Under GCD the United States will have essentially no capability to counter "wars of national liberation." Whether, under such conditions, sufficient stability could be retained in the world to make economic competition important is open to question.

¹The case of open rearmament is more straightforward, and depends on two factors: (1) the general industrial level of the state renewing the rearmament race; and (2) the level of preparation of "springback" capability.



SUMMARY DISCUSSION OF GENERAL AND COMPLETE DISARMAMENT

The obvious feature of GCD is the elimination of sophisticated military power as a means of competition. The advocates of GCD believe that this will lead to the reduction of tensions and the corresponding collapse of the cold war. However, an alternate point of view can be defended with equally valid arguments. It would appear that the attitude toward GCD is more an emotional state and a function of the holder's views on the nature of man than of any other argument. As the nature of man has been debated without apparent resolution for several thousand years, it is unlikely that any argument made in this paper will affect attitudes toward GCD.

In effect, advocates of GCD prefer to trust the altruism of the potential enemy, or, alternatively, the altruism of an "International Peace Force," rather than to fear and the "balance of terror." This attitude is to be contrasted with that held by advocates of both Arms Control and Arms Race. There are far more similarities between the states of Arms Control and Arms Race than between either and disarmament.

The question of an international force deserves more study than has been given to it in most discussions of disarmament. This force is to have, by definition, a capability sufficient to prevent any nation from rearming; which is to say that it will have sufficient power to rule the world if it so chooses. How the leaders of such a force are to be prevented from encroaching on the retained sovereignty of the nations of the world is not clear. Hopefully, they would not desire to do so.

One proposal would have this force commanded by a council of officers, each from a different national state, and all of equal rank. These men, it is hoped, would be unable to agree on any scheme for world conquest. The scheme appears rational on the surface, but it should be pointed out that it has been attempted without success in the past,¹ and furthermore, such divisions within the force may prevent it from functioning in an effective manner, so that it is unable to keep the peace. A civil war between sections of a UN Peace Force is not impossible.

An alternate proposal, put forth by the Soviet Union, would have the force composed of the national constabularies, and commanded by the Security Council. This, of course, simply entrusts enforcement within the national territory of the Permanent Members to the Members themselves, as each retains a veto over the use of the Peace Force. Also, it is hardly likely that a U.S. constabulary would arrest the President of the United States for violations of the GCD agreement. The case within the Soviet Union is similar.

¹Notably in the Roman Empire. Selection of the officers is another open question. Are they to be elected? If so, by what electorate?



In other words, it is very easy to raise objections to disarmament schemes. These objections apply not only to the two specific proposals studied, but to any plan for producing a state of GCD. However, GCD is a stated long-term objective of the U.S. Because of this, considerations of changes which might be conducive to or lead to agreement on terms for implementing GCD have been studied. Such studies are controversial. They require imaginative exercises and are, therefore, relatively easy to challenge on specific points. In no way do they attempt to show what the future will be like, although they are an attempt to examine what the future may be like. They are not to be construed as plans in any sense. Nor does this study advocate adoption of the proposals. These considerations are reported in Volume II of this report as speculations on ways in which GCD might be achieved.

Insofar as the major effort of the study was concerned, relatively little attention was given to GCD or disarmament generally. However, as there are two GCD proposals before the Eighteen Nation Committee on Disarmament, and the U.S. is presumably committed to one of them, it was impossible to ignore disarmament. The conclusions of the study of disarmament are simply stated: Under GCD, the United States retains no military capability to preserve the national security or protect her vital interests. There are significant possible threats, the chief of which are clandestine rearmament and "wars of national liberation." The effect of GCD on the specified national policy goals is to make them inapplicable, by eliminating the military as an instrument of national policy.



THE FIVE-POINT PROGRAM

On January 21, 1964 at the Eighteen-Nation Committee on Disarmament discussions in Geneva, a message from President Johnson outlined five major arms control proposals. They were designed, he later said, ". . .to take further steps toward peace, enforceable steps which can endanger no one's safety and will enlarge everyone's security."

In summary, these five points proposed

1. Discussion of means of prohibiting the threat or use of force to change boundaries, or to extend control or sovereignty.
2. Verified freeze in the number and characteristics of strategic nuclear offensive and defensive vehicles.
3. Verified agreement to halt all production of fissionable materials for weapons use.
4. System of observation posts and other methods for reducing the danger of war by accident, miscalculation, or surprise attack.
5. Measures to stop the spread of nuclear weapons to nations not now controlling them.

DISCUSSION OF THE PROGRAM POINTS

In subsequent discussions and amplifications of the President's Five-Point Program, it was made clear by the Secretaries of State and Defense that the verified freeze on nuclear weapons and their delivery systems was considered to be the heart of the proposal. In addition, these two proposals, particularly if coupled with methods to reduce the effectiveness of surprise attacks, form a consistent unit in that both tend to produce the same overall effect on the strategic balance.

Therefore, this study considers Points 2, 3, and 4 of the program as a single proposal. This package agreement tends to produce a "Strategic Stalemate" situation between the superpowers. Although the first and fifth points of the program can be related to this situation and may be consequences of stalemate, they are considered separately because they are not necessary parts of a package agreement and may be separated from the Johnson program.



If implemented, the fifth point of the program would tend to produce a military situation of strategic stalemate between not only the superpowers, but all nations. However, its implementation is more difficult than the freeze because it involves many nations, while the freeze can be produced through bilateral agreement between the U.S. and USSR. In the discussion that follows, development of significant nuclear capability by nations other than the U.S., USSR, France, and UK will be considered as an independent variable which acts to change the strategic balance between the superpowers.

The first point of the program is less specific than the others, and its interpretation is subject to wide disagreement. To actually prohibit the use or threat of force to alter international frontiers, a form of General and Complete Disarmament (GCD) would be required, and it is preferable to discuss such situations as special cases of GCD. Something very close to a formal agreement to respect frontiers already exists in the Charter of the United Nations; therefore, it was not considered necessary to discuss agreement without controls, because it does not appear to be a situation significantly different from that which exists at present.

EFFECTS OF VERIFIED FREEZE ON THE MILITARY CAPABILITY OF THE U.S. TO PROVIDE FOR NATIONAL SECURITY AND PROTECT VITAL INTERESTS

Verified Freeze and Strategic Stalemate

Points 2, 3, and 4 of the Five-Point Program are considered as a single package which, for convenience, we call the "verified freeze." The immediate effect of implemented agreements would be to produce a situation of strategic stalemate between the two superpowers. With large numbers of weapons remaining in the inventories, it is unlikely (in the near future, at any rate) that either power would be sufficiently confident in the probabilities of military success to risk a first strike against the other's strategic weapons.

It is very difficult to predict technological progress, and especially so in an unclassified paper. The stability of strategic stalemate, being directly dependent on the future of technology, cannot be predicted in this study. Although the number of weapon systems has decreased since 1944, the effectiveness of the strategic establishments of both the U.S. and the USSR has increased enormously; no matter how stringent the controls on both numbers and characteristics of nuclear delivery vehicles, there is nothing to assure that a technological upset will not occur. Without question, under the freeze, research would assume a more important place than ever before. For example, it is difficult to see how any control system could be designed which would prevent the installation of bombs with higher yield-to-weight ratios, while not allowing enemy inspectors to gain information of a compromising nature. Therefore, we must assume that qualitative improvement of



weapons would continue under the freeze, including improvements in accuracy, hardness, yield, and possibly in the exchange ratio of offensive systems required to destroy second/strike systems.

The verified freeze contains provisions for drastic restrictions on weapons systems testing. It is unlikely that either U.S. or USSR military planners would have enough confidence in their technological improvements to risk the survival of their nation through the use of an untested weapon in war, no matter how great his theoretical advantage might be. Therefore, the decision to launch a first strike appears to be less likely under the freeze than at present.

The same argument can be applied to defensive systems. The USSR has shown a marked reluctance to allow a freeze on defensive weapons systems and technology. It is as likely that a verified freeze agreed to by the superpowers would allow continued development and installation of defensive weapons as it is that these would be forbidden. However, it does not appear that this special case would greatly change the primary results of the verified freeze. No matter how many or how promising the defenses of a nation against attack by ICBM and manned bombers might be, it is extremely unlikely, given the enormous destructiveness of even very small numbers of weapons, that there would be much confidence in the capability of these systems to defend the nation in war time. Consequently, the verified freeze, with or without a freeze on defensive weapons, would tend to produce a situation of strategic stalemate.

A number of other arms control proposals have strategic stalemate as their goal. Conversely, the continuation of the arms race produces a situation of deterrence which might be considered similar to strategic stalemate. Both continuation of the arms race and arms control are quite distinct from disarmament, and both have a far higher probability of achievement. Although it may be argued that an unrestricted arms race would produce strategic stalemate without arms control, the two cases differ significantly, as is examined below.

Strategic Stalemate: Arms Control or Arms Race?

To the extent that arms control measures such as verified freeze tend to produce a situation in which both superpowers have a large strategic arsenal, but are deterred from striking first because of a lack of confidence in their ability to achieve a clear win, it may be said that arms control and the continued arms race are not greatly different. However, there are highly significant differences between the two world situations.

Under arms race conditions, the trend toward bipolarity in the world not only continues, but is magnified. Today the U.S. and USSR have



second- or third-generation strategic delivery systems, and it is highly doubtful whether more than a very few other nations possess the economic and technical resources to enable them to obtain significant numbers of these sophisticated systems. If these become obsolete, and fourth-, fifth-, etc., generation systems are installed, even the larger powers lack sufficient capability to enter the arms race. If the superpowers install first- and second-generation defense systems in addition to improvements in offensive delivery systems there will be no question of any other nation entering the strategic picture. The only protection these other nations will have will be to fall under the strategic umbrella of one of the superpowers.

Furthermore, under the arms race condition, superpowers refrain from using quality weapons against smaller nations for reasons other than military necessity. They may be deterred by the other superpower, or restrained by political or moral considerations, but, there is no question about their capability both to attack other powers with strategic weapons, and to retain sufficient capability to deter the other superpower.¹

This would not necessarily be true under conditions of arms control. Under the verified freeze agreement, weapons expended on minor powers presumably would not be replaceable, and certainly could not be replaced quickly. In addition, each superpower would suspect the other of having made in the strategic arsenal significant improvements which could not be offset by an increase in the number of weapons in their inventory. There would be less confidence in the capability of the weapons to render Assured Destruction, and there would be sound military reasons for not expending these weapons in attacks on minor powers or in limited war. In other words, under conditions of a freeze, relatively small reductions in the strategic inventory would be more significant and less attractive than under conditions of an arms race.

Since, under conditions of arms control, there would be more funds available to both sides for less sophisticated weapons and techniques for carrying on the cold war, it cannot be assumed that arms control would necessarily reduce the tensions between the U. S. and the USSR, or that conflict would not continue under other conditions. Thus, it becomes necessary to determine whether a shift in the level of conflict necessarily benefits either superpower. In any event, it should be recognized that conflict may well continue and that, as the strategic balance not only is a stalemate, but is known to be a stalemate, deterrence of actions short of major war may well be considerably reduced. Thus, the U.S. would require, under a freeze type of arms control, weapon systems for deterring lower levels of conflict. Presumably, there would be restrictions on the kind of weapons which could be produced under the agreement.

¹In the physical sense of deterrence. A discussion of the requirements of deterrence is presented in Volume II.



Strategic Defense and Control of Nuclear Proliferation

The Five-Point Program contains provisions for prohibiting the deployment of strategic defense systems and for controlling nuclear proliferation. The two proposals may reasonably be discussed together, because they interact strongly with each other. Under the conditions of strategic stalemate produced by the verified freeze agreement, deployment of AICBM and other defense systems will reduce the residual capability of minor nuclear powers to damage the U.S. and the USSR. Similar results might be obtained by placing direct restrictions on the nuclear capabilities of these nations. In both cases, reduction of their capability to damage the superpowers tends to preserve the bipolar nature of the modern world. It is also clear that if, as proposed in the present Five-Point Program, there will be restrictions on AICBM systems, it is imperative that some method of controlling nuclear proliferation be devised. The alternative would be to relax restrictions on defensive systems.

However, there are differences between the two cases. If the superpowers deploy AICBM and air defense capabilities, but make no effort to control the nuclear capabilities of second class powers, obviously some nations will still have far greater power than others, and will possess the capability to damage irrevocably and in a short period of time any nation which does not possess an effective AICBM. Under the mutual deterrence umbrella of the superpowers, many smaller "deterrence games" will be possible, and problems such as mutual fear of surprise attack will remain in these subgames.

Moreover, it is doubtful whether either superpower would have full and complete confidence in its strategic defense systems. The power of the superpowers with respect to smaller nations would be less in a world in which many nations possess nuclear weapons than in one in which only the superpowers possess them. This results in an extremely complex and speculative calculation of the probable future of such a world.

The Five-Point Program calls for prohibiting the transfer of nuclear weapons to nations not now possessing them. This restriction is not necessarily very significant, because it has been estimated that at least ten nations not now possessing nuclear weapons have sufficient economic and technical resources to produce them; but it does tend to make a simpler world than one in which most nations have a nuclear capability.¹ In addition, the superpowers have an option (i. e., the deployment of strategic defense systems) not open to any other power and although the superpowers will not

¹Non-nuclear nations might also renounce nuclear weapons, of course; but it is well to consider the effects if they did not do so, or if their renunciation were not permanent. West Germany has repeatedly stated that she is uninterested in any agreement which permanently assigns her the status of a second-class power.



have complete confidence in their strategic defenses, they will have some confidence in them. The major effect of such systems would be to so raise the price of great power status that no nation other than the U.S. and USSR would be able to afford it. It should be noted that it is assumed that strategic defenses would probably not be very effective against the sophisticated weapons in the U.S. and USSR arsenals; and more important, no one can be certain that they are effective.

In one sense, the verified freeze may be dependent in the long run on some kind of controls over the capability of smaller powers. This control may be achieved either through strategic defenses, or through more direct means. This is due to the fact that, given development of a plethora of nuclear capabilities, it may be possible in the future for some combination of nations (including one superpower) credibly to threaten one of the superpowers. In the real world, the more likely event is that before such a coalition can develop sufficient capability, the threatened superpower will abrogate the treaty and begin construction of new weapons. The point is that in order for the treaty to continue in force, it must not act to threaten the vital interests of either party. Protection of such vital interests is possible only if the Assured Destruction capability of both superpowers is not known to be seriously threatened. One way to achieve this situation would be through control of all nuclear weapons; a far easier method would be through deployment of strategic defense forces sufficient to protect against minor powers, and raise the uncertainty inherent in calculations of war outcome. The two methods have the same effect on the larger strategic balance; but they do produce significantly different worlds.

Near-Term Effects (One Year)

There appear to be no significant effects in any conflict area caused by the Verified Freeze in the first year of the agreement.

Intermediate-Term Effects (One to Five Years)

The Verified Freeze tends to produce a more 'stable balance of terror,' and make a situation of strategic stalemate not only more stable, but visibly more stable. This should significantly lower the capability of the United States to use strategic systems as a primary means to deter limited aggression by major powers. Weapons systems and forces tailored for limited engagement would be required for deterrence of these actions.

In addition, the confidence of each side in its strategic forces would be lessened due to restrictions on testing and the limitations on numbers of systems. Research and development of weapons allowed under the agreement (or not forbidden by it) would take on new importance, and each side would undoubtedly attempt to achieve by technological means an advantage over the other.



Far-Term Effects (Six to Twenty Years)

Research and technology will undoubtedly produce surprises which cannot be predicted. One possible effect would be the development of weapons systems not recognizable as such, and therefore, not prohibited or controlled by the verified freeze. The effects of such developments on deterrence of attack by major powers cannot be predicted.

The situation of strategic stalemate which is the major tendency of the arms control agreement would undoubtedly have a significant effect on deterrence of limited war. The United States probably would find it necessary to increase the capability for waging limited war, and probably would have to engage in one or more such conflicts. These conflicts would not necessarily be confined to those between the U.S. and the USSR, as other nations are capable of developing a significant capability for waging lower level warfare. The strategic umbrella of the USSR would extend by proxy over many smaller countries, in that the U.S. would be reluctant to expend quality weapons from a limited and nonreplaceable inventory, thereby possibly allowing the USSR an advantage in strategic weapons. Deterrence of minor powers would depend on development of limited war capability, as would military protection of vital national interests.

EFFECTS OF THE VERIFIED FREEZE ON U.S. POLICY GOALS

The U.S. Policy Goals enumerated in the Work Statement are all more or less related to strategic balance of power. As the effect of a verified freeze is to produce strategic stalemate, it is difficult to state precisely what effect the situation will have on each of the Zuckert-Page points. In reviewing the discussion below, the reader should keep in mind that the major effect of the freeze in the realm of strategic deterrence will be through the development of weapons not covered by the freeze; that is, through technical breakthroughs which cannot themselves be predicted. Consequently, the fact that there is no foreseeable effect should not be interpreted as meaning that there will not be an effect.

Near-Term Effects (One Year)

There is no foreseeable significant effect on any of the policy goals within one year after adoption of a verified freeze agreement, with one possible exception. The exception would occur if a particularly badly designed inspection agreement resulted in one power discovering a weakness in the other's strategic arsenal which would significantly enhance the attractiveness of a first strike. Although this possibility should be unlikely, it should not be discounted. In this sense, there may be an effect on survivability of weapons. The effect on the option available to the United States—reducing the attractiveness of using irreplaceable strategic systems in limited war—has already been discussed above.



Intermediate Term Effects (One to Five Years)

War Termination Capability

By eliminating the Not Quite Incredible Counterforce capability of the U.S., the decision to escalate to the highest levels of war is made even less credible than at present. This is not necessarily a very significant change.

Negotiating Thresholds

In that the U.S. would be required to enhance her capability for fighting limited war under a condition of strategic stalemate, it is probable that more negotiating thresholds would be achieved under conditions of a verified freeze. It should be recalled that it is likely that funds which would otherwise have been allocated to strategic delivery systems will be available for limited war systems procurement.

Damage Limitation

If the verified freeze contains no restrictions on civil defense capabilities, presumable damage to the superpowers would be less under this type of arms control than under the conditions of arms race. This would be particularly true if the agreement did not restrict deployment of strategic defensive systems.

Controlled Response

Technology advances which tend to improve command and control are not prohibited under the verified freeze. Therefore, the same conditions apply to arms race or arms control.

Multiple Options

As stated above, it is likely that the U.S. and USSR will have increased experience in prosecuting limited wars under a condition of strategic stalemate. It is therefore likely that there will be a significant increase in options available for less than general war. However, the option to use strategic systems in limited war will be greatly reduced. For example, the use of the ICBM in intermediate scale warfare will probably not be open.

Crisis Control

Under conditions of strategic stalemate, escalation of warfare to the highest levels is not a credible threat. Therefore, the capability of winning armed conflicts in the battlefield becomes extremely important. A massive Soviet invasion of Europe or some area contiguous to the USSR would present difficult military choices to the U.S., in that the threat of devastating the



Soviet homeland would not be believed, and the military situation would favor the Soviet Army in the field. It is possible that some sort of Limited Strategic War¹ might be made necessary. At lower levels conflict, the probable increases in U.S. limited war capability which would accompany the verified freeze would tend to make crisis management less difficult.

Deterrence

As stated above, deterrence of major war should be more stable under strategic stalemate. Deterrence of less than general war will depend on whether or not additional limited war capability has been achieved.

EFFECTS OF THE VERIFIED FREEZE ON SPECIFIED NATIONAL SECURITY PROBLEM AREAS

Security of the United States From Open Attack by Major Powers

No firm conclusion in this conflict area is possible, because the future of technological achievements cannot be predicted. If it be assumed that the freeze succeeds, i.e., there are no covert violations which enable a potential enemy to achieve a significant counterforce capability against the United States, the freeze situation may be said to be more stable than the arms race. Because of the relatively high inventories of strategic weapons allowed under the verified freeze, the strategic balance is far less sensitive to minor violations and evasions than GCD would be. Therefore, it provides more military security against attack by major powers than does GCD.

If the freeze operates to restrict deployment of offensive weapons, but does not restrict development and deployment of defensive systems, it is barely possible that some lowering of the deterrent power of the U.S. strategic arsenal could take place; but as the United States has far more technical and economic resources than any other nation, it is more likely that installation of defensive systems would operate to increase the uncertainty of the outcome of a strategic war, and would not really affect deterrent power at all. A potential enemy could not know whether or not defensive systems could protect him. The result does not appear to affect the outcome of the verified freeze.

Given, then, that technological surprise does not thwart the intent of the verified freeze agreement, the outcome would be strategic stalemate. The United States would therefore be protected from direct open attack by (rational) major powers.

¹ See Volume II for a discussion of Limited Strategic War and Type III Deterrence.



Security of U.S. Interests in Latin America and the Caribbean

The situation under the verified freeze does not appear to differ predictably from that which would result in a continued arms race.

Security of the U.S. From Direct Attack by Minor Powers

Under the verified freeze, the United States would be reluctant to expend irreplaceable strategic weapons against minor powers. To the extent that U.S. security with respect to minor powers depends on quality strategic weapons, the verified freeze situation would be less secure than the arms race. However, the extent to which security from minor powers is so dependent may be questioned. Under the agreement, the United States would be permitted to acquire sufficient general purpose forces and equipment to deter any attack by minor powers.

It should be noted that security against minor powers will also be directly affected by whether or not strategic defensive weapons are allowed under the agreement, and whether or not the nuclear capabilities of minor powers are controlled. If, either through strategic defense systems, direct control of minor power nuclear capability, or both, the damage that minor powers could do to the United States is limited, the above general conclusion holds. If, however, there is no restriction on the capability of these powers to cause significant damage to the United States in a short period of time, the freeze will act to drastically lower the security of the United States. Under an arms race condition, the United States always retains the military option of "denuclearizing" any power other than the Soviet Union, even if she is restrained from doing so by other factors. Under the verified freeze, at least part of this military capability will be lost.

Challenge to U.S. Interests Through Subversion and Economic Warfare

There is no predictable difference between the situation under the verified freeze and that under an arms race. Presumably, both the U.S. and the USSR will have increased resources which may be used in fomenting or combating subversion and economic challenges. The extent to which each side benefits by a mutual rise in resources available for this purpose is outside the scope of this study.

Threats to the United States by Open or Clandestine Rearmament of Potentially Hostile Powers

The verified freeze is clearly preferable, from the military point of view, to GCD with respect to this variable. This is due to the high inventory levels allowed under the agreement, which act to reduce the effect of incremental increases in the enemy's strength. Furthermore, the United



States, with her high industrial, technical, and economic resources, should possess a far better pre-crisis mobilization base than any other nation. A sufficiently restrictive arms control agreement could reduce this advantage, by making a very small increment in enemy power decisive quickly. The high inventory levels allowed under the freeze serve to "stretch out" the time period of rearmament, and therefore work to the advantage of the United States.

Technological surprise, or even covert rearmament, are always possible threats under any arms control plan. Whether the advantages of arms control outweigh these dangers is not a military question, and is outside the scope of this study. It has been noted that prediction of technological advances in strategic weaponry is not possible. With this in mind, it may be tentatively concluded that the verified freeze appears to offer less danger than GCD; and that continued development and deployment of strategic defense systems may offer one hedge against covert enemy rearmament, by lowering his confidence in the capability of his new systems.

Possible Challenges to U.S. Position in World Markets

There appears to be no predictable direct effect on this conflict area due to the verified freeze. However, several indirect effects may be noted.

1. Higher level of resources available to both U.S. and USSR, due to reduced spending on strategic systems.
2. Possible interaction effect due to reduced potential of the U.S. to use quality weapons against minor powers such as China.
3. Point (2) above may be counteracted by increased general purpose capability (available to the United States under the agreement).

SUMMARY: FACTORS OPERATIVE IN VERIFIED FREEZE ENVIRONMENT

1. Limited numbers of weapons tend to make research and technology more important. Qualitative improvements in weapons cannot be offset by proliferation of weapons.
2. The deterrent balance is more sensitive to changes in the exchange ratio; i. e., the ratio between number of first strike systems expended to the number of enemy systems destroyed.
3. Assuming that the verified freeze works (i. e., that technology does not produce a new kind of arms race), the over-all effect would be to shift conflict between the superpowers to a lower level.



4. Other nations, therefore, would assume a position of increased importance because of the inability of the superpowers to employ quality weapons.
5. The United States' interests and national security will have to be defended through limited war. This will make flexible systems which can be employed in a wide range of conflicts more valuable.
6. The danger of technological surprise upsetting the balance of power is relatively great. Military R&D programs assume a position of the highest importance.



NUCLEAR FREE ZONES

SUMMARY OF NUCLEAR FREE ZONE PROPOSALS

The Rapacki Plan

The best known proposal for creation of a Nuclear Free Zone was presented to the Eighteen Nation Disarmament Committee by the Government of the People's Republic of Poland on March 28, 1962. The provisions of this proposed agreement have been used to form other model agreements to apply to other areas of the world. In its original form, the Rapacki Plan was a relatively straightforward proposal to eliminate nuclear weapons in a border zone, and presumably was intended to reduce the risk of an incident at the intersection of the spheres of influence of the West and the Communist bloc. It had the following provisions:

1. Nuclear weapons and the means of delivering them would not be introduced into the nuclear free zone.
2. Weapons presently in the nuclear free zone, and their delivery systems, would be withdrawn.
3. After removal of nuclear weapons, partial demilitarization of the nuclear free zone through reduction of forces to some agreed level would be undertaken.
4. All states possessing nuclear weapons would undertake not to use them against the territory of the nuclear free zone.
5. An international control commission would monitor the agreement.

It should be noted that two parts of the proposal are more restrictive than might be the case were a zone to be created elsewhere; i. e., the provisions for reduction of conventional armaments, and the restriction on delivery systems. Since the United States (and presumably the Soviet Union) has invested heavily in dual-purpose weapons which may deliver both conventional and nuclear weapons (i. e., Honest John; 8-inch Howitzers; tactical aircraft), the restrictions on delivery systems would definitely tend to reduce the forces present in the nuclear free zone; while there also would be an explicit requirement to reduce conventional weapons as a second stage to the proposal.



The Rapacki Plan proposed the creation of an International Control Organization which all states within the nuclear free zone would be pledged to aid, but there was no expansion of this proposition, and the nature of the control organization was not specified. According to the Plan, both ground and aerial observation would be available for the Control Commission.

Other Nuclear Free-Zone Proposals

The Rapacki Plan was intended to create a zonal area including at least Poland, Czechoslovakia, East Germany, and West Germany. Other states could join the zone if they so desired. In addition to this Central European Zone, nuclear free zone areas have been proposed for Latin America, Africa, the Mediterranean, and the Pacific Ocean area.

A treaty creating not only a nuclear free zone but also a completely demilitarized area in Antarctica is already in effect. This treaty agrees to rights of mutual inspection and visitation of all bases and establishments in Antarctica by any signatory power. The U.S. has exercised this right, and has inspected the Soviet bases in the South Polar region; and the Soviet Union has made reciprocal visitations to the U.S. facility. No international control commission has been created, nor was it believed desirable to create one. However, Antarctica is unpopulated, has no industrial establishments, and the number of scientific stations on the continent is small. It is unlikely that any conclusions should be drawn from the Antarctica case to apply to other areas of the world.

Nuclear Free Zones Considered

The Rapacki Plan is complicated by the inclusion of all nuclear delivery systems within the ban, and also by the provisions for reduction of conventional weapons. These portions of the proposal may be separated from the nuclear free zone concept, and this has been done in the analyses in this paper. In some cases, demilitarization of a zone may be required as a condition of the creation of the zone, because not to do so would be to leave one power totally dominant in the region. There is some evidence to indicate that this is true with respect to the Rapacki Plan.

In this study, the ban on delivery systems has been interpreted to mean that systems designed for the exclusive purpose of nuclear delivery shall be prohibited; dual-purpose weapons, such as large artillery, are not considered to fall under the prohibition, and are treated as any other military weapon. All nuclear warheads, however, are considered to be prohibited.

Proposals for the creation of nuclear free zones in Central Europe, Africa, and Latin America were considered and major effort was concentrated on the European Zone. The Mediterranean Zone proposal was rejected as being unlikely, due to the U.S. strategic forces stationed in that area. The Chinese proposed Pacific Area Zone is not endorsed by either the United States or the Soviet Union, and is therefore, considered to be merely a propaganda move. In addition, possible zones in the Middle East and South Asia were considered. It is probable that they will be proposed in the future.



EFFECTS OF THE CREATION OF NUCLEAR FREE ZONES ON U.S. MILITARY CAPABILITY TO PROVIDE FOR NATIONAL SECURITY AND PROTECT VITAL INTERESTS

In considering various areas of the world as possible nuclear free zones, certain factors must be kept in mind. The creation of a nuclear free zone in an area where there are presently no nuclear weapons, which is far from either superpower, and which is of relatively minor strategic importance, is quite different from creation of a zone in Central Europe, for instance. The United States has and will continue to have far better capabilities to support distant conventional war than does the Soviet Union; therefore, the Soviets are more likely to profit from use of small nuclear weapons in those regions, as their military requirement for quality weapons will be greater the further from the Soviet Union the conflict is located. Conversely, close to the Soviet homeland, the United States may be forced to use tactical nuclear weapons in order to halt a massive Communist advance.

In the case of Latin America, or even Africa, the United States could, in principle, profit from the creation of nuclear free zones. It is true that this removes one option from the U.S. (i. e., that of fighting a war in those regions with small numbers of men with nuclear weapons) but it also removes the option from the Soviet Union. In actual practice, it is unlikely that either the United States or the Soviet Union would base nuclear weapons in these regions.¹ Whether there is or is not a treaty creating a zone in those areas, observation, reconnaissance, and intelligence activities will be necessary. Consequently, it is unlikely that the creation of zones in such areas would be of any practical consequence.

The situation is different with respect to Central Europe. The United States is faced there with the prospect of Soviet IRBM's in large numbers, and with Soviet aircraft based in Western Russia, East Prussia, and the former Polish territories. The creation of a zone would not affect these capabilities, and would therefore create a military imbalance. This has been the position of the State Department, and it appears that the U. S. will continue to reject the Rapacki Plan on these grounds.

A look at the factors associated with a nuclear free zone in Central Europe today indicates that under present political and military conditions its establishment would present the Departments of Defense and State with very difficult problems, such as, (1) the often repeated and binding treaty obligations of U.S. to defend Europe if it is attacked by the Communists; (2) the distrust, by the Soviet Union, of a rearmed Germany and their almost morbid

¹ However, the Soviets are known to have installed nuclear capable weapons in Cuba, although these have supposedly been withdrawn.



fear of a Germany with nuclear capability; (3) the present flourishing economy in Western Europe; (4) the desire and hopes for German unification - which the USSR opposes unless it becomes a Communist satellite; (5) the uncertainty of the Europeans that the U.S. would actually start an all-out nuclear war over an attack in Europe; (6) the desire of international Communism to take over this highly productive area; (7) the hopes of France to become an independent and powerful nation again; and (8) the economic and political in-fighting among the European nations and the United Kingdom. All of these political and economic factors will have a direct effect on whether or not such a zone will or could be established. An analysis of these factors indicates that the establishment of a nuclear free zone in Central Europe is a highly doubtful event in the foreseeable future even without consideration of the military factors.

The military factors are somewhat simpler but probably much more relevant to decisions concerning the adoption of such a measure under present conditions. Consideration of the following factors substantiate this view:

1. The historical preference and experience of the USSR for non-nuclear wars involving massed troops and artillery over short interior supply routes
2. The large numbers of well trained and equipped troops available to the Soviet Union in this area as opposed to the smaller number of NATO forces available¹
3. The apparent inability of NATO forces to stop a surprise invasion, without recourse to nuclear weapons, soon enough to prevent a negotiated cease-fire resulting in major gains for the Communists
4. The problem of what to do if the Soviet Union invades Western Europe in a surprise move—the U.S. choice might be between attacking the Soviet Union and precipitating an all-out nuclear war, giving up a portion of Western Europe, or using strategic nuclear weapons in Europe

All of these factors tend to illustrate the relative improbability of such a measure being adopted in the present or foreseeable future. The effects of the adoption of a Central Europe nuclear free zone measure in the present and foreseeable time frames on the stated policy goals and problem areas are presented herein.

¹ Although European NATO without the U.S. has both population and GNP in excess of the Soviet Union.



EFFECT OF CENTRAL EUROPE NUCLEAR FREE ZONE ON U.S. POLICY GOALS

Deterrence

Deterrence, as a policy goal, is most often thought of as dealing with prevention of an all-out nuclear war. If it is used to include deterrence of limited war then the two cases must be handled separately. The problem of strategic deterrence in the event of a nuclear free zone in Central Europe is rather easily analyzed.

If it is U.S. policy to use whatever means available to prevent an attack on free Europe, then our capability for delivering a nuclear strike on the Soviet Union is sufficient, if credible, to prevent such an attack. The presence or absence of tactical nuclear weapons in Central Europe has no effect on the U.S. capability to make a nuclear attack on the Soviet Union; therefore, this situation will not affect our strategic deterrence capability. However the presence or absence of tactical weapons has an effect on the credibility of this deterrence. It may be argued that the removal of tactical nuclear weapons would increase the credibility of our strategic deterrent forces to the Soviet Union. They, therefore might be less inclined to attack in Central Europe believing that the U.S. response would be a nuclear strike against the Soviet Union.

On the other hand, the presence of tactical nuclear weapons in Central Europe, will have an effect in terms of deterrence of a limited war in Europe. The presence of tactical nuclear weapons in Europe practically requires that any Soviet attack be massive and nuclear or it will otherwise have little chance of success. Such an attack by the Soviets would very likely be massive enough to cause the U.S. to respond by attacking the Soviet Union. The possibility of this may deter the Soviet Union and therefore the presence of tactical nuclear weapons may add to the deterrence of a limited war in Europe.

Whether or not the removal of tactical nuclear weapons from Central Europe would affect deterrence of an attack there involves the U.S. view of the Soviet view of the U.S. response to an attack by the Soviets. In this situation, it is traditional to take the position that the military must be prepared for the worst case. If this rule is followed the argument will be to keep these weapons in Central Europe. As has been pointed out, one of the consequences is that if deterrence fails and a war starts in Europe it is almost certain to be a nuclear war with the strong possibility of escalation into an all-out nuclear war.



If, on the other hand, tactical nuclear weapons are removed, the Soviet Union is deterred less and the possibility of a limited war is increased. We are therefore faced with the earlier described Arms Control Dilemma. In this case the dilemma resolves itself into choosing between a very bad war with a low probability of occurrence or a lesser war with a somewhat higher probability of occurrence. This is a value judgment beyond the scope of this study. Another approach to this dilemma is to work toward a situation in which it does not occur. The study team looked at one possibility in this area. The results are given in Volume II, as part of the GCD discussion.

War Termination Capability

The presence of nuclear weapons in a combat zone greatly increases the probability that any war that begins in the area will become a nuclear war. It is probable that the United States would be able to terminate such a war on favorable terms somewhat easier than would be the case if it were non-nuclear, however, from the European point of view, nuclear war fought on European soil is not acceptable.¹ Europeans view nuclear weapons in the battle zone primarily as a means of ensuring that the situation would escalate into a general thermonuclear exchange; consequently, the question of war termination in the traditional sense is not relevant. The deterrent posture of the United States relies in some part on the fact that an escalating nuclear war simply cannot be terminated; addition of war termination capability might actually weaken deterrence.

Negotiating Thresholds

The removal of nuclear weapons from Europe would probably add to the number of negotiating thresholds, in that the question of employment of nuclear weapons would not be automatically settled; however, addition of this negotiating threshold might also weaken deterrence.

Damage Limitation

Removal of nuclear weapons obviously contributes to damage limitation.

Controlled Response

Putting nuclear weapons under the control of a field commander weakens the central government's control of those weapons; this is precisely what it is intended to do, in that the enemy may no longer rely on blackmailing the central government to prevent the employment of nuclear weapons.

¹Non-nuclear war is not accepted either, but a limited non-nuclear engagement in forward areas is obviously less unacceptable than nuclear war.



Multiple Options

The option of fighting a precisely controlled, very low-level nuclear war is removed if a zone is created. On the other hand, the option of not employing nuclear weapons at all is given more credibility.

Crisis Control

More central control over a crisis in the zone area is assured if nuclear weapons are not present, because field commanders could no longer start a war with tactical nuclear weapons. On the other hand, the control of the crisis through a small number of very precise battlefield strikes becomes impossible. The question turns on two factors: (1) the desirability of central control over the weapons, with the consequent possibility of nuclear blackmail over the central government; and (2) the relative precision of nuclear strikes delivered by battlefield commanders as opposed to those delivered from longer ranges.

EFFECTS OF A CENTRAL EUROPEAN NUCLEAR FREE ZONE ON SPECIFIED NATIONAL SECURITY PROBLEM AREAS

Security of the United States from Open Attack by Major Powers

The capability of the European defense forces to oppose a Soviet attack on Europe has an indirect effect on U.S. direct security, because, in the past, Soviet war plans have called for a long-range war between the U.S. and the USSR to end in a standoff, with the Russian Army overrunning Europe. If there were no possibility of taking Europe during the strategic standoff part of the war, there would be less incentive for the Soviets to begin the war in the first place. The Soviet war plan was probably unrealistic at the time it was proposed, and is even less realistic today; but there is no guarantee that Soviet military planners believe this.

If the Soviets believed that an attack on Europe will be met by U.S. strikes directly against Soviet territory, it is probable that any attack on Europe would begin with a Soviet counterforce attack on the U.S. Consequently, the problem of deterrence of an attack on Europe cannot be separated from the question of security from direct attack on the U.S. However, if the Soviets believed that an attack on Europe would be fought in the battle area, and the homelands would remain a sanctuary area, the situation is considerably changed.

Security of U.S. Interests in Latin America and the Caribbean

Creation of a European nuclear free zone would have no effect on U.S. Caribbean interests. Obviously, creation of such a zone in Latin America would have a direct effect.



Security of the U.S. From Direct Attack by Minor Powers

European zones would have no effect on this conflict area. A zone in South Asia or the Pacific might have a great effect since the Chinese are apparently more impressed by weapons in the local area earmarked for them than they are by general strategic offensive weapons.¹ Consequently, withdrawal of these weapons might weaken U.S. deterrence against China. The same is likely to be true for any other power: a weapon that has "your name on it" is likely to be more impressive than one that has a variable address.

Challenge to U.S. Interests Through Subversion and Economic Warfare

No direct effect on this conflict area is seen from nuclear free zones.

Threats From Rearmament (Violation of the Agreement)

No direct effect is foreseen in this problem area: violation of the agreement would mean that the enemy has introduced tactical nuclear weapons to use against the U.S. forces in the zone; his use of such weapons would abrogate the agreement, and practically guarantee that U.S. nuclear weapons would be brought in for use in retaliation. He might achieve local success with this policy, but the probability of deliberate U.S. escalation is very greatly increased.

Challenge to U.S. Position in the World Markets

No direct effect is seen on this conflict area from creation of any nuclear free zones.

EFFECTS OF NUCLEAR FREE ZONES IN OTHER REGIONS

Four zones (i. e., Latin American, South Asia, Africa, and Middle East) are essentially nuclear free areas at present which is a significant difference compared with the Central Europe Zone. It is true that there are military bases in these areas in which there are or may be some transient and even stores of nuclear weapons. However, the basic aspect of the problem for these other areas is keeping weapons out of the area, not removing weapons.

Latin America

A declaration was presented to the Eighteen Nation Disarmament Conference on 29 April 1963 by the Governments of Bolivia, Brazil, Chile,

¹This problem has been discussed in a series of papers by Dr. Alice Langley Hsieh of RAND Corporation.



Ecuador and Mexico urging all Latin American nations to join in an agreement "not to manufacture, receive, store or test nuclear weapons or nuclear launching devices."

If such an agreement were to come into existence in the near-term or foreseeable future (which is very doubtful because of the varying political beliefs and aspirations of the countries and leaders involved, and the fact that such a de-facto agreement is not in existence) the following effects would be involved.

1. If successful, the agreement would free the U.S. from the threat, of nuclear weapons in this area directed at the U.S. —an option now available to the Communists.
2. If unsuccessful, through overt or clandestine violation, the U.S. would be no worse off than now. It does now, and would under such a treaty, require constant surveillance and inspection to eliminate this threat.
3. Such a treaty would not affect the U.S. strategic deterrent forces since bases in Latin America are not an essential part of this posture. If the treaty prohibited the passage of nuclear weapons and delivery systems on ships or submarines an inconvenience in ship movements would result.
4. The loss of nuclear naval basing rights in this area would complicate but not make ASW protection against underseas craft impossible. If the whole Caribbean area, including the Gulf of Mexico, were part of the zone this problem would become more complicated.
5. The loss of nuclear capability in this area would have little effect on our limited-war capability or effectiveness.

It would appear that from a military long-range planning viewpoint the establishment of such a zone would not be critical or decisive, with the notable exception of any agreement limiting U.S. ASW capability in that area.

South Asia

A nuclear free zone in this part of the world has many implications. Since the Chinese Peoples Republic (CPR) has become a nuclear power and because all of South Asia is a prime target for Communist expansion this problem may be critical for the United States. If the nations of South Asia deny themselves the option of using nuclear weapons to deter or repel an attack by the Chinese Peoples Republic they are clearly open to blackmail



and military domination, unless, of course, the United States or some other nuclear power guarantees their independence and places them under the nuclear umbrella.

If a nuclear free zone is established in South Asia in the near or foreseeable future the following factors affecting long-range planning would be involved.

1. Such a zone would have no effect on the power of U.S. strategic deterrent forces or their posture. It is assumed that U.S. bases in Japan, Okinawa, Guam, and the Philippines would not be affected by this agreement. It might limit their psychological effect.
2. The limited use of forward naval bases would not be serious since most naval operations would take place in international waters in any event and could be operated out of bases not affected by the agreement.
3. The restriction of nuclear weapons in the area would reduce the options available for the conduct of limited wars.
4. Nuclear defensive weapons (air and ground launched) would not be installed, except as a direct violation of such an agreement.

From an overall viewpoint, the establishment of a nuclear free zone in South Asia would—if some precautions are taken to ensure the continuation of U.S. bases in the islands rimming Asia—have little direct effect on the strategic forces capability to deter war and limit damage to the U.S. if deterrence fails. However, the effect on U.S. capability to protect U.S. interests in that region in a limited war situation may be adversely affected by loss of the option to escalate any lesser encounter into a limited or tactical nuclear engagement.

Africa

On 25 May 1963, the Summit Conference of Independent African States submitted a resolution to the Eighteen Nation Disarmament Conference which in effect declared Africa to be a denuclearized zone.

If Africa, south of the Sahara, declared itself or was declared by the major powers to be a nuclear free zone, the effect on Air Force long-range planning objectives would be rather small.



1. The net result to U.S. strategic forces might be a slight gain. It would, on the one hand, restrict future use of this part of Africa as weapons bases. On the other hand, it would, if the agreement were honored, prevent the Soviets and the Chinese from establishing nuclear armed bases there.
2. The effect on U.S. capability to pursue wars of less than nuclear intensity would be unimpaired except for the loss of the option of escalation to tactical nuclear war. The probability of this requirement arising in this part of Africa seems quite small. The supply lines for supporting a large-scale limited war in this region do not favor any of the major powers.
3. One area requiring further investigation is that of the effect of restrictions on over flights by aircraft bearing nuclear weapons enroute from England and the U.S. to other potential trouble spots in the world.

The Middle East and North Africa

The United States retains several strategic bases in this region, and consequently, the establishment of a nuclear free zone might have an adverse effect on the U.S. strategic offensive capability. As dependence on manned bombers decreases, this effect will be less and less severe. In any event, the U.S. leases on these bases expire in the relatively near future.

Greece and Turkey are NATO members, and the establishment of a zone in their territory will be open to the same objections advanced in the Rapacki Plan. The same may be said for Pakistan. Defense of Iran against an all-out Soviet attack might well require battlefield use of nuclear weapons, and therefore establishment of a zone there would be detrimental to U.S. interests. All of these nations are close to the Soviet Union, and consequently the USSR would be the principal beneficiary of any scheme to eliminate nuclear weapons in the region.

North Africa is already close to being a nuclear free zone, with the possible exceptions of Egypt and Israel. Although neither of these States has tested a nuclear weapon, both have strong incentives for acquiring them. If a workable agreement which would prevent the introduction of nuclear weapons into North Africa or Palestine could be arranged, it would simplify the U.S. problems of keeping stability in that area.

NUCLEAR FREE ZONES AND THE CONTROL OF THE SPREAD OF NUCLEAR WEAPONS

The U.S. Arms Control and Disarmament Agency has declared the control of nuclear proliferation to be the most important problem on its



agenda. One method of controlling the spread of nuclear weapons is through the creation of nuclear free zones. According to some analysts, these free zones are thought to be more acceptable to smaller nations than would be treaties renouncing nuclear weapons, in that the zone-type agreement gives some protection against nuclear weapons in the hands of others. On the other hand, some prospective zone members are unwilling to forswear nuclear weapons under any circumstances. The Germans, for example, state that the creation of a zone in Europe must be ancillary to the reunification of Germany, as otherwise the division of Germany might become permanent. No West German government that accepted the permanent division of Germany could ever hope to win re-election.

There is extensive literature available on this question. The best classified studies have been done by the RAND Corporation, and may be obtained by qualified requesters from that organization. One of the best unclassified works is The Dispersion of Nuclear Weapons, a collection of papers edited by Rosecrance. The reader is referred to these studies for a more complete exposition on the subject. The present study has been unable, due to time and personnel limitations, to include all of the factors involved in such a complex question.



OBSERVATION POSTS

The concept of observation posts as a means of reducing the danger of war by accident, miscalculation, or surprise attack is, in a sense, as old as war itself. The need for observation and intelligence of the enemy is one reason for the ancient military maxim of controlling the high ground. It is in this sense then that both the U.S. and the Soviet Union maintain various forms of observation posts in each others' country.

In modern history, the concept of mutually agreed to observation posts dates from President Eisenhower's ~~Blue Skies~~ ^{Open Skies for Peace} Proposal made in 1955. Since then both the U.S. and the Soviet Union have made proposals to the Eighteen Nation Disarmament Committee concerning various types and conditions for the establishment of observation posts. In 1957, for instance, the Soviet Union proposed an 800-kilometer aerial photographic zone on either side of the iron curtain to discover secret preparations for aggression; and the setting up of control posts at railway junctions, in harbors, and on motor highways to prevent surprise attack. In 1964 President Johnson proposed, as part of the Five Point Program, the establishment of observation posts.

To study observation post type arms control measures and because no specific proposals were available for analyses, a scenario was prepared describing one form of this type of measure. The analysis necessary for the development of this scenario indicates that the factors operating are relatively independent of the time frame considered.

The scenario, describing one set of many possible sets of conditions under which the U.S. and the Soviet Union might sign a bilateral agreement providing for a set of observation posts in Europe, includes an agreement which provides for six to ten arms control centers along the East - West boundary in Central Europe. These control centers would be data processing points linked to a number of observation posts within a 90-kilometer radius. The posts would be limited to observing (no inspection) transportation. Each post would be notified by the host country in advance of military maneuvers etc., which might concentrate military forces. The primary purpose of the observation posts would be to report any dangerous concentration of military forces which might lead to an accidental war or a surprise attack. The purpose of the control centers would be to report any dangerous activity to the designated Warsaw Pact, NATO and UN authorities.



EFFECTS ON U.S. POLICY GOALS

The policy goals considered may be grouped into two categories: (1) those dealing with the problem of establishing a credible deterrent (i.e., deterrence, crisis control, survivability, and multiple options), and (2) those dealing with national survival if deterrence fails (i.e., controlled response, damage limitation, negotiating thresholds, and war termination).

Credible Deterrence

If an agreement were implemented, observation of military buildup necessary for a nonnuclear attack in Central Europe, might be seen before the buildup was complete. Thus the U.S. would clearly gain an advantage, because such attacks would be deterred. In fact, a Soviet-U.S. agreement to establish such posts would be a de facto nonaggression agreement between NATO and the Warsaw Pact nations. In this situation, the U.S. would be faced with one less threat and the policy goals associated with deterrence would come closer to being achieved. However, since this measure gives the U.S. a clear advantage in Europe the Soviet Union is very unlikely to agree to it without some concessions like the complete denuclearization of West Germany or the establishment of observation rights over some portion of U.S. territory. (The Soviet Union later withdrew the 1957 offer to establish observation posts in Europe.)

The latter concession (i.e., observations posts in U.S. or U.S. controlled areas) should not, with adequate security precautions to protect sensitive military information, degrade U.S. capability because the U.S. maintains a posture of readiness for prompt response rather than a first-strike posture. In fact, the presence of Soviet observers might very well enhance the credibility of U.S. deterrent forces. However, such posts might interfere with the U.S. option of mobility and deception to increase deterrent system survival.

National Survival

The establishment of observation posts does not in itself guarantee the prevention of accidental wars or surprise attacks. It will make the initiation and prosecution of such wars in the areas observed more difficult. Like some of the other arms control measures this one, if adopted, would tend to force any aggression or conflict to a higher level of intensity in the military sense or away from the military into the political and economic sectors. Thus the effect is more in the nature of a detour than a road block. The effect then on U.S. policy goals of winning a conflict, once it has started, is very small. Except for the possible intelligence gains from observation posts their role would cease with the outbreak of war.



EFFECTS ON NATIONAL SECURITY PROBLEM AREAS

No significant effect is identified in the security problem area of possible challenge to U.S. position in world markets and only second-order effects are indicated in the problem area of challenge to U.S. interests through subversion and economic warfare.

Security of U.S. From Open Attack by Major Powers

U.S. security in this area would be markedly improved, except in a highly improbable situation in which the U.S. had allowed itself to grow weak in, or to lose, some military capability. In such a case, discovery of this weakness by Warsaw Pact observers might encourage the potential enemy to initiate a surprise attack against U.S. - NATO.

Security of U.S. Interests in Latin America and the Caribbean

Observation posts would be an asset to the U.S. in this area, since military moves against Latin America and the Caribbean could be better detected.

Security of U.S. From Direct Attack by Minor Powers

U.S. security would be improved to an extent which depends upon the amount of territory controlled by minor powers that would be subject to U.S. observation under the terms of an agreement.

Threats to U.S. by Rearmament (Open or Clandestine) of Potentially Hostile Powers

Observation posts allowed under a disarmament or partial disarmament situation could be vitally important in the protection of U.S. national security interests by detecting any rearmament action of a potentially hostile power. Under other conditions, where observation posts are exchanged without disarmament agreements, these establishments would be an asset to the U.S. in that they would aid in detecting any strengthening of forces and armaments.



DESTRUCTION OF OBSOLETE EQUIPMENT

The only firm proposal made for the destruction of obsolete equipment was the U. S. proposal for a "bomber bonfire" of U. S. B-47's and Russian TU-16's to be taken from operational inventories and destroyed at the rate of 20 per month over a 2-year period. It was also suggested that additional aircraft might be added from mothball stocks. It perhaps should be noted that the Soviet Union, in 1964, ridiculed this proposal as being "too little."

It was admitted by the U. S. to the Eighteen Nation Disarmament Committee that the planes referred to in the proposal were being phased out of the active inventory and therefore, this action would have no direct effect on U. S. strategic capability. The stated objective of this measure was to start the actual physical destruction of armaments in order to gain experience in arms control activities. In addition, the actual destruction of these bombers would prevent their use in other forms of warfare and their sale or transfer to other nations. This latter objective would help in the control of regional arms races and in the prevention of the spread of nuclear delivery systems to nations not now having them.

The factors to be considered in measures of this type include a careful determination of what is meant by "obsolete." Recent U. S. experience in a "war of national liberation" indicates that a sizeable number of military items previously considered obsolete and replaced are quite useful in other situations. The Douglas Skyraiders, the soon to be retired early Model B-52's, and the MACE A missiles in Europe are unclassified examples. Another factor is the overall effect on U. S. capability to protect its vital interests around the globe. Over the past few years, the U. S. and the Soviet Union have both given (or sold) a great amount of "obsolete" military equipment to other nations with the expectation that this would aid in the achievement of their goals. The MIG aircraft in China, North Korea and Vietnam are not long-range bombers but could easily carry tactical nuclear weapons if they were available and if it was to the Communists advantage to use them in this fashion.

The factors operative in this type of measure are probably independent of the time frame chosen for analysis except that as time goes by different items will appear to be obsolete.

EFFECTS ON U. S. MILITARY CAPABILITY

The destruction of equipment declared to be obsolete (and replaced or replaceable) for the strategic forces will, by definition, not directly affect



U.S. strategic capability. However, it might effect U.S. tactical or limited war capability in two ways: (1) directly, in the sense that the obsolete strategic equipment might be useful in other types of conflict; and (2) indirectly, because the destruction of enemy equipment will prevent its use by them or their allies against the U.S.

Because the problem of nuclear proliferation (N + 1 country problem) is an important one, the effects of not destroying certain types of obsolete equipment may be worse than the outcome if it is destroyed. The purchase by Indonesia of obsolete U.S. refueling aircraft from France and their subsequent resale to Communist China is a hypothetical and perhaps farfetched example. However, for this reason it may be worthwhile to consider the unilateral destruction of some equipment in this category under the heading of setting an example for the Soviet to follow. If they do not reciprocate, the U.S. may not be worse off and if they do the U.S. may have gained. Careful selection of such equipment is, of course, necessary.

EFFECTS ON POLICY GOALS

In terms of strategic deterrence, the destruction of obsolete equipment will have little or no effect except possibly that of indicating to the Soviets that the retained U.S. deterrent forces are more capable and this thereby may increase credibility. This in turn may have the effect of increasing the pace of the arms race since the Soviets may want to counter this obvious increase in capability with an increase in their own capability.

In terms of deterrence of limited wars, the effect may be either good or bad depending on the equipment and the world situation. On the one hand the destruction of this type of equipment may prevent its falling into the hands of those who might use it to start a new war of national liberation. On the other hand, its destruction will prevent its possible use in deterring such wars.

In terms of winning a war, if deterrence fails, this measure will have no direct effect on the outcome of a strategic interchange. However, it may have, as has been described, different effects on the outcome of a limited war.

EFFECTS ON NATIONAL SECURITY PROBLEM AREAS

Certain effects already have been discussed. In general, the destruction of obsolete equipment will have three effects on the specified conflict areas.



Security of U.S. From Open Attack by Major Powers

Destruction of obsolete or obsolescent equipment, because of the factors discussed under "U.S. Military Capability," would slightly increase the security of the U.S. from open attack by major powers (for example, Communist China).

Security of U.S. From Direct Attack by Minor Powers

This proposed arms control measure would increase U.S. security to some extent in this area for the same reasons it would affect U.S. security from attack by major powers.

Threats to U.S. by Rearmament (Open or Clandestine) of Potentially Hostile Powers

As in the two preceding problem areas, destruction of obsolete equipment would eliminate the possibilities of its falling into the hands of potentially hostile powers. The proposed measure therefore would tend to increase U.S. security in this area.



EXCHANGE OF MILITARY MISSIONS

The exchange of military missions as an arms control measure, originally proposed as a device for preventing accidental war, has the following objectives:

1. To make the deterrent capability of the U. S. more credible to potential aggressors and thus enhance those policy goals associated with "credible deterrence."
2. To reduce the probability of an accidental or "catalytic" war.
3. To increase the belief that the U. S. is not planning a first strike offensive against any other nation.
4. To reduce tensions and increase understanding between the military staffs of the nations involved.

Because this measure has not been proposed as a formal treaty there are no exact or precise statements on which to base the analysis. For this reason the study staff prepared a scenario describing one possible form of this measure and the circumstances under which it might be implemented. This scenario was then analyzed and perturbed to determine the effect of this type of measure on U. S. policy goals and national security problem areas.

The terms of the bilateral agreement contained in the scenario provided for the exchange of commissioned officer missions at certain (specified) operating force headquarters, command centers, major high-echelon headquarters and military colleges. Combined command headquarters involving allies of the signatory nations were excluded from the agreement. The effective date for the agreement was chosen as 1 January 1966.

The effects of an agreement for the exchange of military missions tend to be independent of the time frame chosen for analysis. For this reason and because the measure does not involve the reduction or redeployment of military forces or systems the analysis is summarized in a slightly different format.



EFFECTS ON U.S. POLICY GOALS

As identified in an earlier section, the policy goals considered may be grouped into two categories: (1) those dealing with the problem of establishing a credible deterrent (i.e., deterrence, crisis control, survivability, and multiple options), and (2) those dealing with national survival if deterrence fails (i.e., controlled response, damage limitation, negotiating thresholds, and war termination).

Credible Deterrence

Because the effectiveness of a deterrence policy rests on its credibility to the parties being deterred, it is mandatory that they be fully aware of the consequences of not being deterred. This awareness may be achieved in several ways. One way is to state publically both the consequences and the means for achieving these consequences. This method is currently being implemented by nearly all of the major nations. The problem here is one of belief: "Do the other nations really believe these statements?" One way to resolve this problem is to publically display the means (e.g., the USSR May Day parades) which introduces the problem of maintaining military security. This is exactly the problem introduced by the concept of exchanging military missions. To the extent to which the military missions are able to determine the capability of the deterrent forces to inflict the stated level of damage in the case of an attack, the credibility of the deterrent is established and therefore the policy goal of deterrence is achieved. On the other hand, if the expert military personnel comprising the mission succeed in obtaining sensitive and otherwise secret military information the probability of a surprise attack by the Soviets may be increased or the Assured Destruction capability compromised.

The success of the exchange of military missions approach in enhancing achievement of the deterrence policy goal would depend almost completely on how well the really essential military security was maintained. It is the opinion of the study staff that the gains in increased credibility of the deterrent forces, through the adoption of this arms control measure, outweigh the losses in credibility due to inadvertent or accidental security violations; especially, when the value of this increased credibility is measured in terms of the ability to prevent an accidental or miscalculated war.

It may be seen, then, that exchanges of military missions do not necessarily lead to unacceptable situations; however, the technical details of such an exchange are very important. The military observers must, for example, be able to distinguish between force exercises and preparations for an actual attack; yet they must be prevented from gaining military significant



classified information. The precise balance between allowing them to learn enough to accomplish the purpose of the exchange, yet not enough to endanger deterrence, is a highly complex problem which must be studied in detail. Such a study will necessarily deal with classified details of actual weapons systems, and cannot be conducted under this contract.

The interactions of mission exchanges with future weapons advanced planning should also be recognized. If the observers were accustomed to receiving certain information about present systems, but were denied that information about a new system, they would naturally become highly suspicious. It might well be the case that they could not be informed about the new system because of quite legitimate security restrictions; but they would necessarily have to take into account the possibility that a surprise attack was being contemplated. Under such circumstances, the exchange of missions would have created a less stable situation than the present one. Furthermore, fear of such an interaction might be a factor in a decision to procure or not procure an advanced weapon system. Thus, certain system options might be precluded by the exchange of missions.

This analysis is not intended as a blanket condemnation of mission exchanges as an arms control measure. It is rather an explication of certain problems that could arise. Examination of the technical details of arms control measures that might otherwise be acceptable is not possible in an unclassified study. It is recommended that any proposal for exchanges of military missions designed to assure the potential enemy of U. S. strategic intent, receive careful examination and analysis by persons and organizations familiar not only with present U. S. weapons but also with the various weapon systems alternatives considered for future deployment.

It should be noted that if such an agreement is negotiated primarily as an intelligence-gathering device most of its potential value will have been lost and the U. S. cannot be assured that it will gain in such an exchange of intelligence.

National Survival

If the policy of deterrence fails and a war of any size starts between the two countries, the function of the military missions would have been compromised and the missions would be expelled or interned. Thus, the direct effect of this measure on the policy goals of national survival would be small. There could, of course, be indirect effects through loss and gain of intelligence information, knowledge of the ability to escalate, information concerning negotiating thresholds, etc. Whether these indirect effects would result in a gain or loss would depend upon the amount of information made available to or obtained by the missions in the respective countries.



EFFECTS ON NATIONAL SECURITY PROBLEM AREAS

Security of the U. S. From Open Attack by Major Powers

Some of the effects of the treaty in this problem area were discussed under the effects on U. S. policy goals. If the treaty between the U. S. and the USSR were implemented in such a manner that vital military information was not lost, it could be a valuable aid in preventing an open attack by the USSR. It could indirectly influence attacks by other powers. For these reasons, the Exchange of Military Missions measure is considered to be a favorable safeguard against open attack by a major power which is a party to the agreement. However, the interaction effects previously noted should be considered as well.

Security of U. S. From Direct Attack by Minor Powers

This arms control measure would have no direct effect on the problem of attack by minor powers. In terms of the more subtle interrelationships existing in the world, this measure could have a stabilizing effect on this security problem area. Many believe that troubles and conflict between the U. S. and the smaller nations in the world are Communist inspired or directed. To the extent that this is true, an agreement with the USSR will have beneficial effects, the nature of which would be determined by the policy goals of the USSR at the time. If the USSR policy includes, "the support of wars of liberation against capitalistic imperialism," the measure would not be effective in this problem area.

Challenge to U. S. Interests Through Subversion and Economic Warfare

The exchange of military observers by the U. S. and the USSR should have no direct effect on subversion and economic warfare activities since these operations, if employed, are generally conducted by other agencies. On the other hand, military information collected by these observers might prove useful, in an indirect way, to the agencies conducting this type of activity. In an open society like the U. S., this indirect effect may be exploited by the USSR.

Possible Challenge to U. S. Position in World Markets

The possible economic challenge is well outside the purview of the military. For this reason, the presence of foreign military missions in the U. S. defense establishment would have no effect on this problem area.

**SUMMARY: EXCHANGE OF MILITARY MISSIONS**

An agreement to exchange military missions with the USSR would probably decrease the possibility of an open attack by the USSR, providing that the U. S. deterrent forces are truly able to inflict the level of damage claimed, in the view of the Russian leaders. If adequate safeguards are taken to prevent the loss of critical military information, the effect of this measure on the other national security problem areas should be negligible.

If this measure works as planned, it tends to produce a situation of strategic nuclear stalemate, and the observations noted under the Strategic Stalemate heading in the Five-Point Program section apply. The technical details of this agreements are important, and require careful analysis by persons or organizations familiar with both the current U. S. weapon systems and the various proposed new strategic weapons.

The interactions of such an exchange with advanced planning of future systems requires further analysis. This analysis will necessarily require access to classified information.



CLOSURE OF SELECTED OVERSEAS BASES AND WITHDRAWAL OF FORWARD DEPLOYED FORCES

The Soviet Union has continually voiced its fear of "encirclement," stating that closure of U.S. overseas bases would do much to "reduce tensions." The Soviets have generally stated willingness to withdraw their forces from overseas bases as a reciprocal gesture; but, as their only overseas forces are those in Cuba, this is irrelevant.¹ In essence, the proposals have been a part of various packages, with the United States occasionally being invited to withdraw overseas forces as a unilateral gesture of good will. There are also domestic advocates who claim that economic gains of such moves will outweigh any strategic disadvantages.

EFFECTS ON MILITARY CAPABILITY TO PROVIDE FOR THE NATIONAL SECURITY AND PROTECT VITAL INTERESTS

Near and Intermediate Time (Present to Five Years)

Consideration of any proposal to close or inactivate U.S. overseas bases, or to reduce or withdraw forward deployed forces, must be made with the strategic context in mind. The USSR operates on interior lines, has few overseas forces, and has little capability to sustain high level combat at long distances. The United States retains considerable sea and air lift capability, and the critical areas in which she is likely to be engaged are located long distances from her shores.

The objectives of the two countries are also different. The U.S. profits from international stability and economic development; the Communists tend to favor unrest, revolution, and "wars of national liberation." Consequently, the United States is faced with a requirement to maintain a capability to engage in several different kinds of war. She must be able quickly to deal with uprisings and Communist coups d'etat; she must be able to counter relatively large infiltrations of enemy forces such as in Viet Nam; and she must be able to resist direct military actions on the part of the Soviets or their satellites.

Economic and strategic realities dictate that the United States employ the same general purpose forces for all of these kinds of war because it is simply not feasible to keep under arms sufficient men to allow complete specialization. Consequently, the Tables of Organization and Equipment

¹There is some speculation that SAM sites in Hanoi are manned by Soviet nationals.



of the general purpose forces tend to become complex, and the required equipment heavy. Logistics are complicated, and a large tonnage of goods is necessary to sustain combat.

Quick reaction times, therefore, dictate that the U. S. maintain stockpiles of strategic goods, particularly POL, in forward locations.¹ Logistics requirements for fast reaction forces are such that airfields capable of handling heavy aircraft in large numbers must be located in areas adjacent to the combat zone. Sustained combat support is primarily dependent upon the sea lift capability; therefore, there must be adequate port facilities. In some cases, weapons are prepositioned near trouble spots to reduce the tonnage of material which must be moved before a significant combat capability is developed.

Consequently, although the overseas gold flow may be reduced through closure of overseas bases, the actual defense budget requirements are likely to be greatly accelerated by such moves. The number of men under arms could conceivably remain unchanged but reserve requirements would be increased, and the air and sea lift forces would have to be augmented considerably. It is unlikely, therefore, that reduction of overseas forces would be a money-saving device.

The compensating move which probably should be demanded from the Soviets is unlikely to appeal to them; namely, destruction of a significant part of the Soviet commerce raiding fleet, both surface and underseas. With capability of the U. S. to move large quantities of support equipment and POL assured, the dependence on overseas bases might be reduced. Even under these conditions, however, increased numbers of air and sea lift vehicles and a greater investment in techniques for construction of airfields and sea off-loading capabilities would be required.

An alternative to overseas bases might be a greater dependence on carrier forces, particular the "commando ship" techniques employed by the United Kingdom. Nuclear-powered super carriers are independent of POL dumps for their primary fuel needs, and they can carry large quantities of aviation fuel in addition to marines and land battle equipment. Of course, the ships are vulnerable to submarines; and their escort vessels, if not nuclear-powered, would be unable to keep up with them.

In the immediate future, dependence on air lift seems out of the question. An order-of-magnitude expansion in air transport capability would

¹A well thought out examination of these factors will be found in Strategic Mobility by Neville Brown of the London Institute of Strategic Studies, London: Chatto & Windus (1963).



be required and, even then, the number of airfields available would probably be small. Airfields are extremely easy to block—a few oil drums placed on the runway can effectively prevent any force from landing. Since the strips would have to be held by U.S. troops, it would appear easier to build and maintain them to the first place.

A few overseas bases might be eliminated. Many have already been abandoned due to the lapse of the U.S. leases and treaty rights. However, a maritime power faced by a land power (which is our situation vis-a-vis the USSR) should never lightly give up a secure beach or airhead; only in exceptional circumstances does it appear desirable to withdraw from overseas bases.

Long-Term Environment (Six to Twenty Years)

It is possible that certain fundamental changes in the international environment might act to reduce dependence of the U.S. on overseas bases. The most likely such change would be a great increase in the capabilities of allies and dependencies of the U.S. to defend themselves without U.S. forces. Under these circumstances, the United States could provide a strategic umbrella and stand ready to back up her allies at the highest levels of limited war. Allied military bases could probably be held until the U.S. could arrive.

EFFECTS ON U.S. POLICY GOALS

The following discussion refers to both the near-term and intermediate-term environments.

War Termination

At the level of intermediate-scale warfare, there would be a drastic reduction of the U.S. capability to terminate war on favorable terms without escalation, due to the increased capability of the Communists to seize territory and present the U.S. with a fait accompli. U.S. buildup in trouble areas would be necessarily delayed by closure of overseas bases.

Negotiating Thresholds

A number of intermediate scale warfare options would be removed as a matter of practical necessity.

Damage Limitation

Reduced dispersion of U.S. strategic deterrence forces could act to reduce the damage-limiting capability of the U.S. in general war.



Controlled Response

By reducing the number of counterforce weapons located in forward areas, the controlled response capability would be lowered. This may not be significant, depending on the missions assigned to the forward weapons.

Multiple Options

The options of strikes made by forces not based in the U.S. is removed. Several intermediate scale warfare options are removed. The option of exercising the force or showing the flag is also reduced.

Survivability

Weapons based overseas would be removed, thus simplifying the Soviet war plans and requirements for first strike. This factor is important to the extent that the Soviets are concerned about the overseas based strategic weapons.

Crisis Control

Loss of troops on the spot in critical areas could make crisis management much more difficult. It is a more difficult decision to make if U.S. forces must fight their way into an area, rather than merely reinforcing troops already on the scene.

Deterrence

Deterrence of massive attack on the U.S. probably is unaffected. Deterrence of attack on NATO would undoubtedly be affected by withdrawal of the U.S. "tripwire" or "plate glass window" forces in Europe. Even withdrawal of dependents tends to lessen the credibility of U.S. strikes in retaliation for an attack on Europe. The capability to visibly demonstrate determination by showing the flag is also greatly reduced.



UNILATERAL INITIATIVES AND NATIONAL SECURITY

THE OBJECTIVES OF UNILATERAL INITIATIVES

Advocates of a policy of U. S. unilateral arms control initiatives claim that the best way to have arms control is to start controlling armaments. The arms race, they claim, is at least partly self-generated. Each new round of strategic weapons triggers a response from the other side, which then requires new moves by the first. By suitable unilateral moves, one side may enforce a "pause" in the arms race, and possibly induce the other side to make a similar reply, thereby slowing or stopping the arms race.

Some advocates of this position go even further, and state that once the arms race has been slowed down, tensions between the U. S. and USSR will be reduced, and the Cold War can be brought to an end. Even if this fails, they say, it is worth a try; meanwhile, large sums of money will have been saved by both sides.

Although this position is intriguing, in actual practice it is difficult to discover significant unilateral moves which do not endanger National Security; for example, it is not possible to discover whether or not the new Soviet weapons revealed at the May parades are intended merely to close the strategic gap, or to wrest the initiative and seize strategic dominance. The United States is perforce required to continue development of new systems, or risk Soviet seizure of the initiative. U. S. military personnel are understandably reluctant to take chances with such vital issues. Furthermore, there is always the possibility that the "hard line" analysts who believe that the nature of Communism requires undying hostility to the West may be correct. Such analysts are quick to point out that if this be the case, any reduction in the U. S. strategic capability may have precisely the opposite effect from that intended; namely, that the Soviets may be encouraged to expand their weapons establishment in the hopes of achieving a position of absolute dominance. Obviously, the United States cannot risk allowing any power the capability to disable her Assured Destruction capability.

The usual form of unilateral initiative, therefore, generally reduces to one of two cases: (1) the move, although perhaps significant for propaganda purposes, is actually trivial in that it has no real effect on the strategic balance; or, (2) the move is significant, but therefore endangers national security if the Soviets do not respond in kind. Very few proposed moves appear to be both significant and safe.



THE PRE-CRISIS MOBILIZATION BASE

There is, however, another possible interpretation of unilateral initiatives, namely that the United States seize the strategic initiative. An arms race may end for more than one reason. One power may be exhausted; there may be war; or one side may so dominate that the other power has no incentive to compete. In the present situation, the U.S. can make continued participation in the arms race very unattractive to the Soviet Union. This is possible only due to the economic and technical dominance which the United States enjoys, and need not entail the construction of any large number of actual weapons systems. Furthermore, it does not require any change in the relative U.S. -USSR strategic balance.

Assuming that the United States does not intend to strike first except as a last resort to honor her treaty commitments to NATO, the requirements of national security are somewhat simplified. Instead of continuous efforts to construct weapons to maintain strategic superiority, the U.S. can invest in what has been called a pre-crisis mobilization base.¹ The mobilization base then serves to increase strategic power, without necessarily inducing the Soviets to build countersystems. This concept involves continued competition in research and technology development, reprogramming of new strategic weapons, and actual construction only of certain gating items for an expanded force. Naturally, weapons required to meet a real Soviet threat must be constructed in their entirety. Such force levels can be determined only in classified studies. The pre-crisis mobilization base strategy is designed to preserve the strategic status quo against future threats, and has as its objective the creation of a situation that is less threatening to the Soviets than would be a great expansion of the U.S. arsenal, while retaining the strategic initiative for the United States.

As an example, the U.S. might construct the silos for a greatly augmented Minuteman or Titan force. However, no missiles need be deployed; thus there is no immediate threat to the Soviet Union. If the Soviet Union, however, responds by building new weapons, the U.S. arsenal can be quickly expanded to meet the threat. In this way, the Soviet Union is given a powerful incentive to negotiate seriously about limiting strategic weapons at a level favorable to the United States. In the example cited, there is no problem of assuring the Soviets that the United States has not yet expanded her force. The empty silos can be easily inspected without compromise of the AGE within the complex. The absence of the missile is spectacularly visible from long distances, including from aircraft and satellites.

¹First described by Herman Kahin, On Thermonuclear War. The present expansion is, to our knowledge, original with this report.



Construction of a pre-crisis mobilization base not only puts the United States in a favorable bargaining position for any future discussion of Arms Control, but also gives U.S. strategic planners and foreign policy operations officials a wide range of new options for responding to changes in the climate of the Cold War. If the Soviets make hostile or unfriendly moves, a new flight of missiles could be quickly installed. This would require the Soviet Union to face either of two unattractive choices: they could accept the relative increase in U.S. strategic power, or they could spend sufficient resources to regain the balance. In all future calculations of actions around the world, Soviet decision-makers would have to take into account the possibility of a U.S. response of this type.

It has been said that the most important consequence of the Korean War was the increase in the U.S. military budget from approximately \$15 billion to approximately \$60 billion. This required a large expenditure by the Soviet Union and China in order to retain even partial strategic balance. A pre-crisis mobilization base would normalize this kind of U.S. response, and simultaneously hedge against technical breakthroughs. Proliferation of weapons is often not the most economical method of insuring the survival of the Assured Destruction capability in the face of new defensive technical developments, but it does provide a measure of such insurance, and sometimes is the only option open in the immediate time frame. However, by limiting the actual construction to items which are gating factors in a force buildup, it is also possible continuously to design new systems compatible with the original investment, yet incorporating the new technologies.

This kind of unilateral initiative appears to be worthy of further study. Recommendations as to the precise nature of the mobilization base must, of course, be made from classified analyses of the nature of modern weapons systems. However, it does appear that there are, for almost any kind of system, items which gate the time required for force expansion, and which have costs that are considerably less than the cost of the system as a whole. The 5-year cost of empty silos, to continue the example, is obviously far less than the 5-year cost of the entire missile systems, whatever the ratios of procurement costs of silos/missile may be. It is known in the open literature that the operations costs of weapons systems often exceeds the initial procurement cost.

The alternatives to the mobilization base are (1) nonresponse to Soviet weapons improvements, (2) construction of U.S. system in their entirety, and (3) unilateral moves to reassure the Soviets of U.S. peaceful intent. The first and third alternatives are, of course, risky. The second alternative is expensive and continues the arms race. In contrast, the mobilization base may stabilize the situation. This alternative to the arms race appears to warrant further study.



PRE-CRISIS MOBILIZATION BASE AND ARMS CONTROL

Although the pre-crisis mobilization base is not the usual form of unilateral initiative advocated by arms controllers, it accomplishes many of the objectives of such moves. No new weapons are created, except in response to an enemy action. No new round of weapons escalation is necessarily triggered. New policy options are created, and new rungs are added to the escalation ladder. Unlike destruction of weapons, this program does not weaken the United States or subtract from her strategic capability; in addition, it provides a hedge against gross underestimation of the threat. Both the United States and the Soviet Union are given the opportunity to save significant sums which might have been spent on an arms race. The objective of enforcing a "pause" in the arms race is accomplished. Lastly, the pre-crisis mobilization base does not affect the strategic balance of power.

The implementation of such a program also gives the Soviets certain options but, again unlike many unilateral initiatives, it does not give the strategic initiative to the Soviet Union. It would, therefore, appear to be a more desirable kind of arms control than some which have been proposed; and because it does not require any Soviet cooperation to implement, it would appear to have a higher probability of success.